

THE STUDENTS' ANNUAL
NEWARK
TECHNICAL SCHOOL



The 1924

KEM•LEC•MEK

THE ANNUAL
OF THE STUDENTS

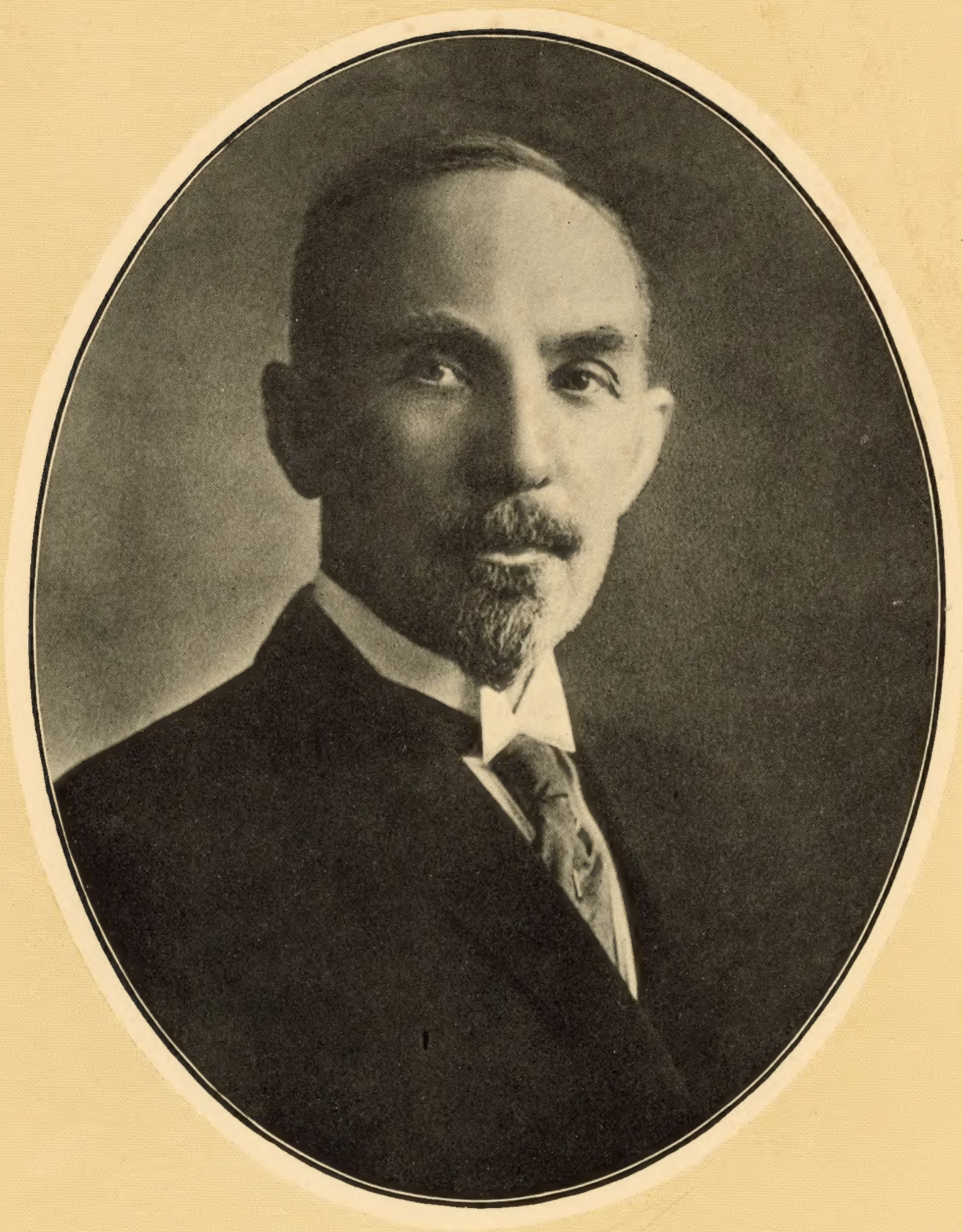
COLLEGE OF ENGINEERING

NEWARK
TECHNICAL SCHOOL



NEWARK, NEW JERSEY

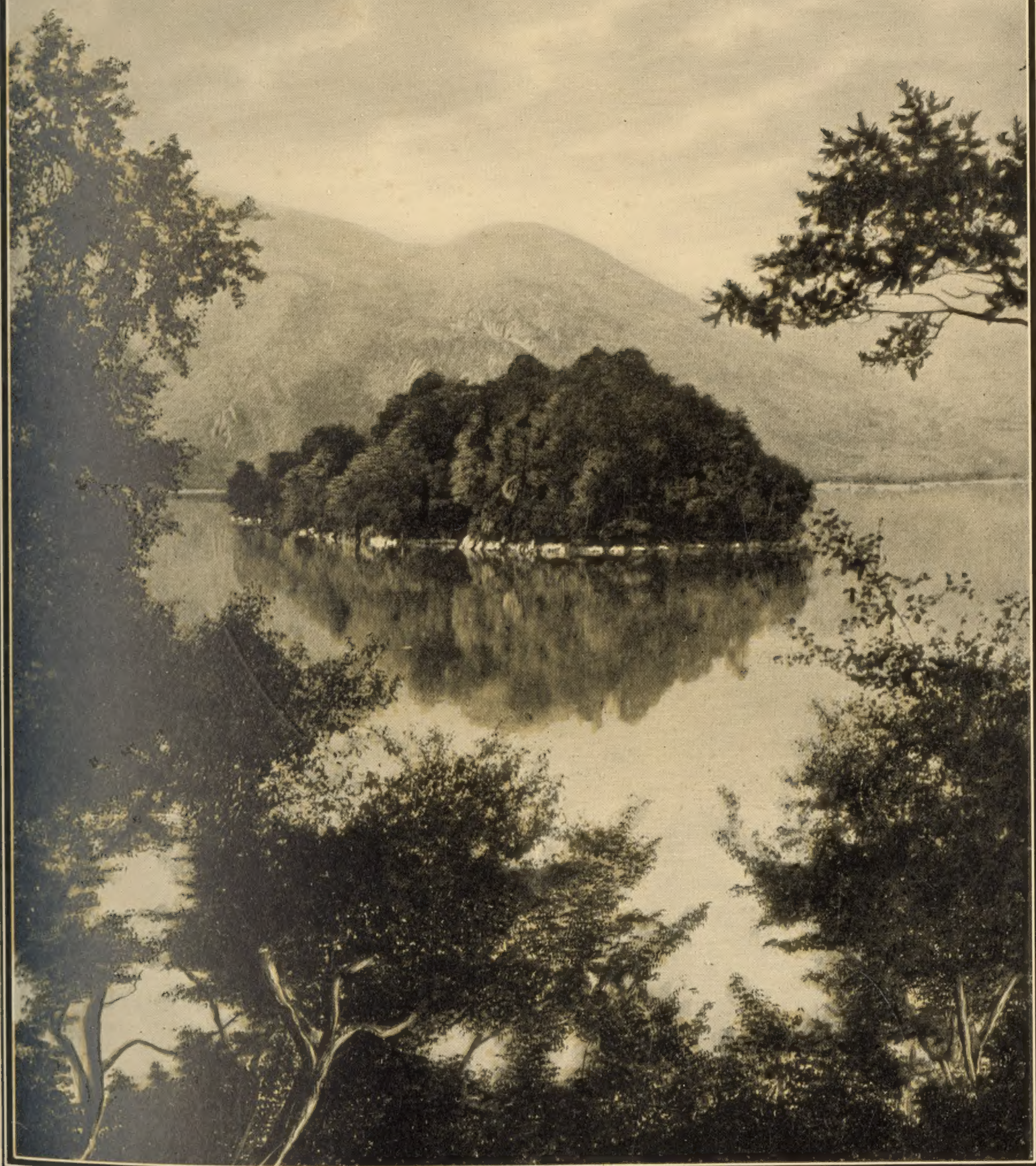
VOLUME TWO



To PETER CAMPBELL

*"like a ship destined not to rot in the harbor, but to
plow new paths over the sea, and to tend ever through
self exercise toward praise and the fruits of glory."*

ALBERTI 1492







FOREWORD

May this year book serve as a lasting memoir to the graduates of fellowship unusual, peculiar to a small college. May it also serve to show to those interested some of the advantages that we believe accrue from the Co-operative System of Education. We have fond hopes that this book will be received as favorably as its predecessor. Consolidating gains is accompanied by tasks comparable in magnitude to those encountered in blazing a trail. May succeeding staffs find the task less arduous and the pleasure as great as we have found them.



CONTENTS

Foreword	Page 9
Dedication	Insert
Dean's Message	Page 13
Trustees	Page 14
Mr. Campbell's Message	Page 15
The Staff	Page 16
The Graduates	Page 17 to 31
Senior Class History	Page 33
Junior Class History	Page 34
Co-operative Impressions	Page 36 to 46
Sophomore Class	Page 47 to 48
Freshman Class	Page 49 to 50
Athletics	Page 51 to 52
Faculty	Page 53 to 59
Societies	Page 60
Acknowledgments	Page 62
School Roster	Page 61
Autographs	Page 63, 64
Advertisers	Page 65 to 80





THE DEAN'S MESSAGE

In a message to the graduating class I want to stress again the fundamental importance of character. You as professional engineers will be judged primarily as men. The world will not expect that you come from this college finished technicians. It will not expect that you exhibit the maturity and judgment of fully developed professional men. The world has a right to expect, however, that you can show that you have a real foundation of character. Honesty, industry, sincerity of purpose, and a sense of deep responsibility you must show. In this day and at this time particularly these attributes are of the deepest significance and of the greatest value. In all honesty and in all sincerity I believe that every one of you has shown to us that you possess in a measure these attributes. The development of them is your first and your greatest duty to the school, to your community and to yourselves. As engineers we hope you may make your mark in your chosen profession. As men we hope and expect that your influence will be felt in the upbuilding of the community, the state and the nation. A training such as you have had will prove valuable to you as individuals but in a very much broader sense it will only be worth while if it is reflected directly in the progress of mankind, through your efforts for and with your fellow men.



William L. Morgan Herbert T. Gleason Peter Campbell Samuel E. Robertson
** Treasurer * * Vice President **



Hon. Frederick Breidenbach
** Mayor of Newark **

Hon. George S. Silzer
*Governor of New Jersey * President **



John A. Furman Frederick Leberhardt William C. Stobaens Halsey M. Larter

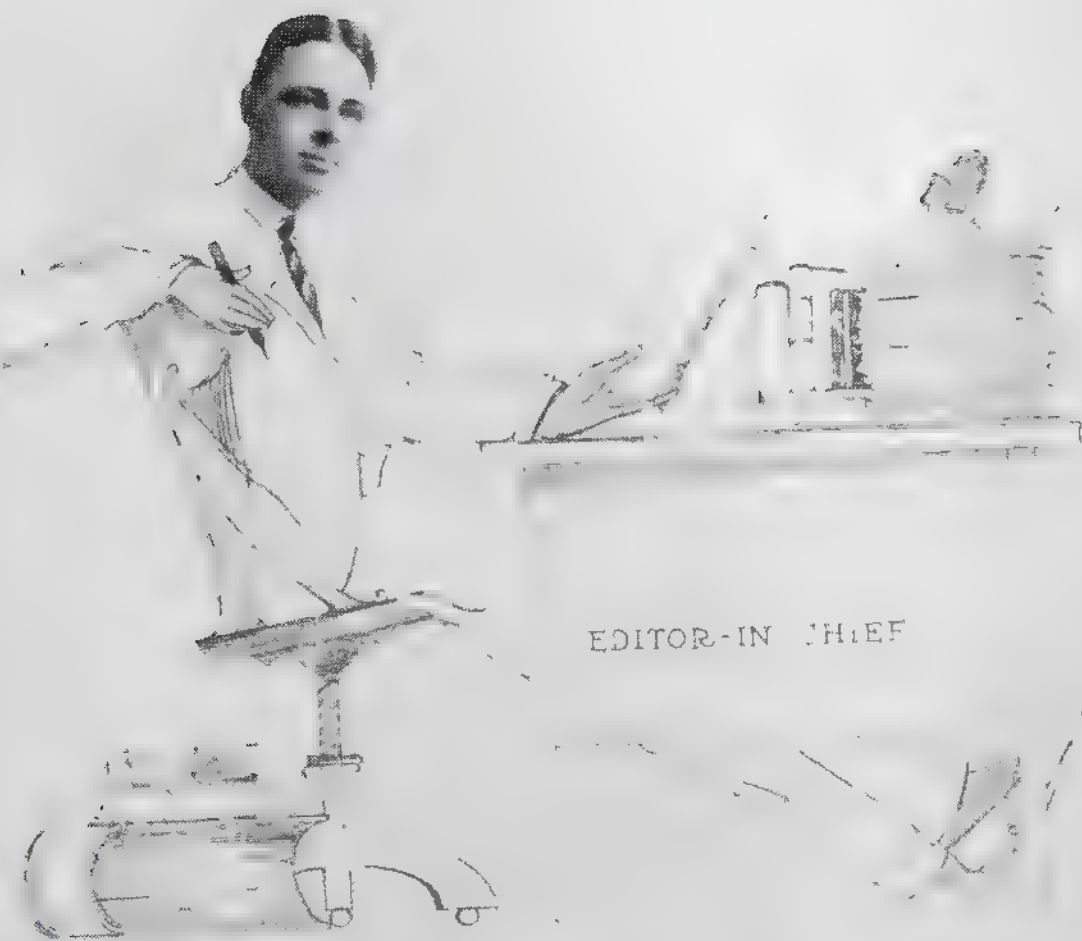
THE MESSAGE OF THE VICE-PRESIDENT

"Study to show thyself approved a workman that needeth not to be ashamed." The foregoing advice was given about two thousand years ago by a leader to a small group of men banded together for human uplift, and probably nothing better could be said to the students in our College. The advice calls for an honorable attempt to hourly analyze your own work, and find out whether the College is being honored, and whether when our students are called on to enter industry as co-operative workers, that the Faculty will say: "These are men whom we are proud to supply."

The co-operative method possesses a wonderful possibility. The Trustees and Faculty of the College are saying to the industrial activities of our time, "Here are our lads—try them out." The industries in most cases, with a built-up, valuable experience, are opening their doors and giving a splendid opportunity to our students. They are trusting you to back up the statement of Director Cullimore, the Faculty and the Trustees of the Newark College of Engineering, that only men are being supplied who are determined to show themselves approved workmen.

To the industries who have shown confidence in our work, the Vice-President of the Trustees would desire to thank all for their patience and co-operative spirit.

THE STAFF



EDITOR-IN CHIEF

ROBERT WIDDOP '24



ART
EDITOR

CARL MANNHEIM '24



ADRIAN STEVENS '24 F. RAY FOGEL '24
ASST BUSINESS MGR. BUSINESS MGR.



VICTOR RIPLEY '26
ASST EDITOR



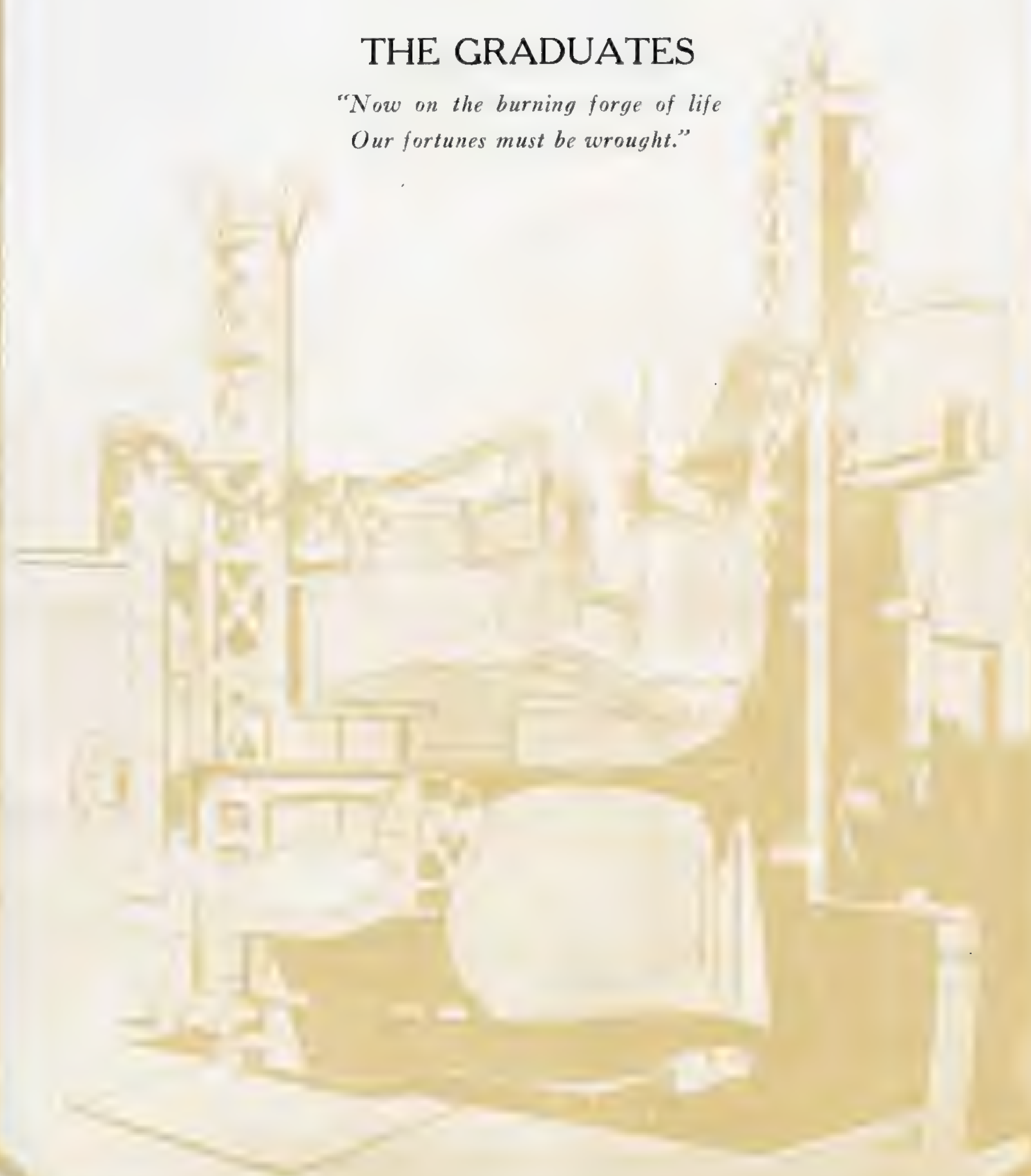
I. BERGMAN '24 L. BURNETT '25 C. BEYER '25
CIRCULATION ASSOCIATE ADV.
MGR. EDITOR MGR.



L. PATTERSON '24 R. MORGENROTH '25
ASST EDITOR COOPERATIVE EDITOR

THE GRADUATES

*"Now on the burning forge of life
Our fortunes must be wrought."*





IRA BERGMAN
171 Elizabeth Avenue, Newark, N. J.

Course:

Chemical Engineering.
Graduated South Side High School 1919.
College of Engineering 1920-1924.

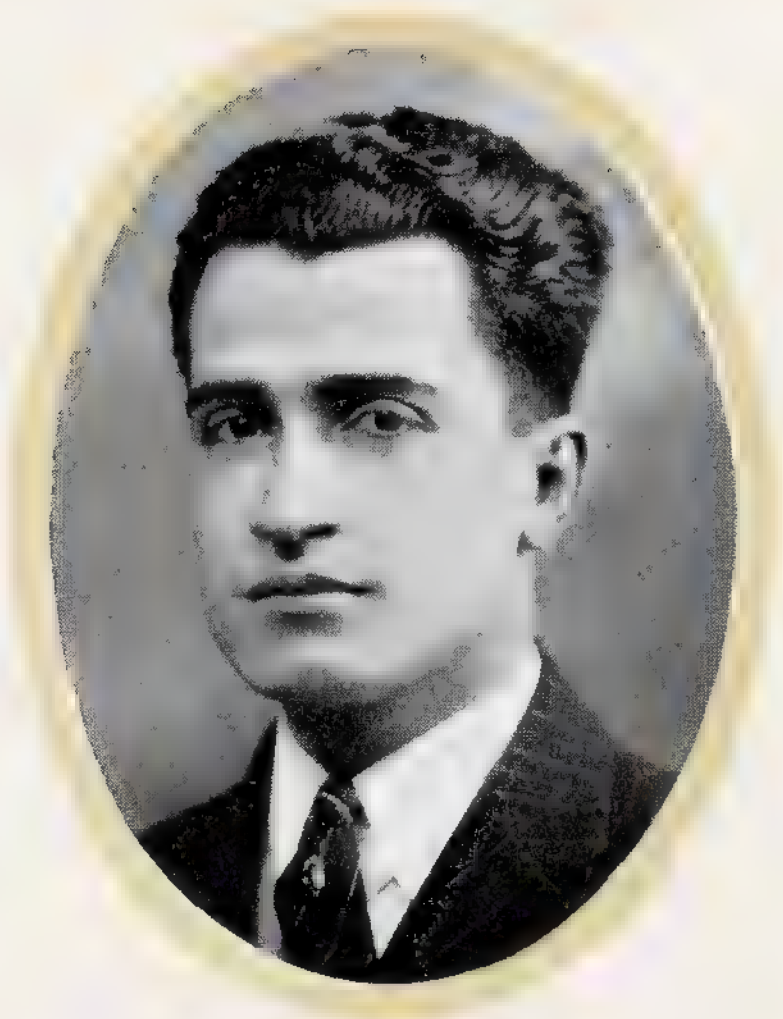
Co-operating Concerns:

Alexander Seidler Company.
Nairn Linoleum Company.
Proctor & Gamble.

Honors:

Phi Delta Sigma Fraternity.
Senior Class Vice-President.
Senior Dance Committee.
Circulation Manager Kem-Lec-Mek.

Ira is a master of the snappy come-back. No one is respected by him in his desire to have the last word. He usually has it because his opponents have something else to do, and Ira is yet to be seen at work. Not that he is lazy—not at all—but he always wants to do something else, and he has never yet arrived at the point where there is nothing else to do but the thing at hand. If he does ever arrive at that stage he will be too tired to do anything, so what is the use?



GEORGE BOORUJY
10 Lafayette Avenue, Summit, N. J.

Course:

Electrical Engineering.
Newark Technical School 1919.
N. T. S. Evening School 1919-1920.
College of Engineering 1920-1924.

Co-operating Concerns:

General Electric Company.

Honors:

Staff Photographer Kem-Lec-Mek.
Senior Dance Committee.

"George" has a specialty. It is building transformers. Most any day he can be seen parading around the place with a handful of pancakes and hysteresis loops. His pockets bulge with kilowatts, and when he hears a bit of gossip, he immediately steps-it-up into a wild yarn. This shows how people unconsciously become like the things which continually occupy their minds. Anyway, if George can step-up the two or three things he knows into enough to pass an exam, we will feel proud of our electrical department.



CECIL S. DAVIS

171 Overlook Avenue, Belleville, N. J.

Course:

Chemical Engineering.

Graduated Laconia High School 1918.

College of Engineering 1919-1924.

Co-operating Concerns:

International Coal Tar Products Company.

McNab & Harlin Company.

Van Dyk Company, Synthetic Perfumes.

Honors:

Senior Class Day Committee.

Reviewer Kem-Lec-Mek.

As a minister's son, Davis is a total failure. Not that he doesn't cut up with the women. We understand that there is a girl in Belleville—but since no one knows where that is, why go into details? Davis always parks his vote along with the professors when an argument comes up. This shows a keen sense of direction, of the eternal fitness of things—or something. But why argue? If a man is right he should be supported and Davis knows that the professors are usually right.



F. RAYMOND FOGEL
475 Norwood St., East Orange, N. J.

Course:

Mechanical Engineering.
Graduated Central High School 1917.
Baltimore Polytechnical Institute 1918.
College of Engineering N. T. S. 1920-1924.

Co-operating Concerns:

Gould & Eberhardt Company.
Bethlehem Steel Corporation.
Frankfort & Aberdeen Arsenal.
Buick Motor Car Company.
Western Electric Company.

Honors:

Senior Class President.
Beta Alpha Theta Fraternity.
Business Manager Kem-Lec-Mek.

Gentle reader, this is not an exceptionally high forehead. The surplus is face which is increasing as the years go by and as the fur which covers the domes of ordinary mortals recedes as a sort of timber line driven back by a period of glaciation. What forehead there is, however, marks a man of intellect as distinguished from the common gunman or safe-cracker. Brains will improve the quality of any sort of work.



CARL P. MANNHEIM

29 North Seventeenth Street, East Orange, N. J.

Course:

Chemical Engineering.
Graduated East Orange High School.
College of Engineering N. T. S. 1920-1924.

Co-operating Concerns:

Proctor & Gamble.
Chemical Company of America.
Seaboard By-Product Coke Company.

Thomas A. Edison Laboratories.

Honors:

Senior Dance Committee.
Art Editor Kem-Lec-Mek.

"—the champion was badly battered but still in the ring when the gong sounded, ending the round." As we reach the end of "Round Four" Curley does not look at all like a champion; furthermore, he never did. Between shifting around from one plant to another and bucking the Faculty here at college he is rather battered but he is still in the ring. This follows, "The harder they get hit the stiller they are." Another thought: G. K. Chesterton makes one of his characters say, "All men look dignified when they are dead," so we still have hopes for Carl.



LEO J. MOSCH
56 Garrison Street, Newark, N. J.

Course:

Chemical Engineering.
Graduated East Side High School 1919.
College of Engineering N. T. S. 1919-1924.

Co-operating Concerns:

Nairn Linoleum Company.
Egyptian Lacquer Company.
The Celluloid Company.
Western Electric Company.

Honors:

Phi Delta Sigma Fraternity.
Chairman Class Day Committee.

"Leo" is essentially a politician. We have yet to see anyone get so much with so little effort. A mighty gift of gab combined with an ingratiating personality has won him friends in places where they count. This is a good way to get ahead but there are others not nearly so easy which we common mortals have been forced to take because we lack what might be called "divine fire."



LAWRENCE J. PATTERSON
173 North Maple Avenue, East Orange, N. J.

Course:

Chemical Engineering.
Graduated East Orange High School 1920.
College of Engineering N. T. S. 1920-1924.

Co-operating Concerns:

Nairn Linoleum Company.

E. I. DuPont de Nemours Co.

Honors:

Beta Alpha Theta Fraternity.
Senior Dance Committee.
Assistant Editor Kem-Lec-Mek.

An embyro engineer by the name of "Pat"
Studies engineering but knows less of that
Than he does about women. And darn little knowledge
He'll have about either when he gets out of college.

Pat is a musician. When but a mere child he played on the linoleum.
He never seemed to get over his childish habit for he still continues
this activity at Nairn's. Of course being a chemist he plays a dif-
ferent tune than before.



JOHN W. NILE
400 Boyden Avenue, Hilton, N. J.

Course:

Electrical Engineering.
Graduated Newark Technical School 1919.
N. T. S. Evening School 1919-1920.
College of Engineering N. T. S. 1920-1924.

Co-operating Concerns:

Gould & Eberhardt.
Crocker-Wheeler Company.

Honors:

Senior Class Treasurer.
Class Day Committee.

No camera can do justice to the flaming thatch of our "Jack." Coupled to this fiery headpiece he has a meek-looking physiognomy, which belies the stuff behind it. Like all other big game hunters, he hesitates to speak of his adventures. It was quite accidental that a mounted specimen of an Alaskan mosquito was discovered in his trophy room. Rumor hath it that Jack, alone and without any weapons, went into the den of this monster and after a terrific hand to hand struggle, emerged half fainting, dragging the lifeless carcass of the beast behind him. It was such courage which enables him to extract dues from our more recalcitrant members. With his consistent plugging Jack should go a long way, if he gets a good rolling start.



SAMUEL REIGENSTREICH
116 Watson Avenue, Newark, N. J.

Course:

Electrical Engineering.
Graduated Eastern District High School 1915.
College of Engineering N. T. S. 1920-1924.

Co-operating Concerns:

American Transformer Company.
General Electric Company.
Westinghouse Electric & Manufacturing Co.
78th Division, United States Army.

Honors:

Class Representative A. A.

Every picture tells a story. This one tells of a lad burrowing his way through cords of text books to the point where he knows a rheostat from a brush discharge. Knowledge of this sort is rare among graduates and Sam is to be congratulated on the way he has outstripped the men with whom he toed the mark in 1920. Sam is runner up in the contest to see who can make the profs talk the longest after the hour is up.



WILLIAM PERRINE
230 Glenwood Avenue, East Orange, N. J.

Course:

Chemical Engineering.
Graduated East Orange High School 1920.
College of Engineering N. T. S. 1920-1924.

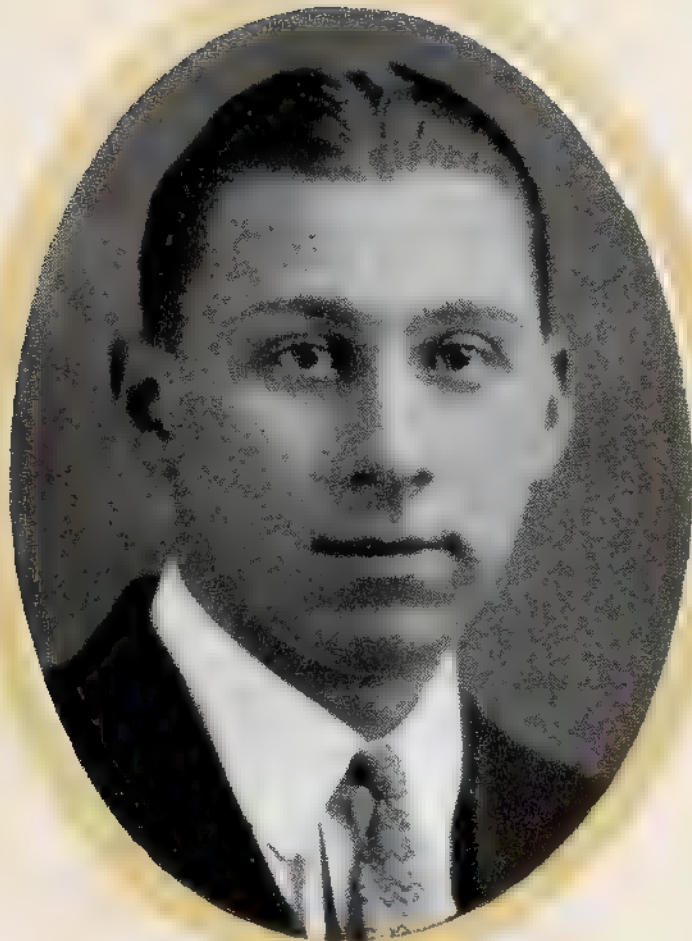
Co-operating Concerns:

McNab & Harlin.
Van Dyk & Co., Synthetic Perfumes.

Honors:

Beta Alpha Theta Fraternity.
Class Day Committee.

Bill is one of those fortunate mortals who were born tired. He even smokes his pipe upside down so he won't have to dump out the ashes, but even then he kicks because he has to push the tobacco in tighter. Nevertheless, we maintain that those so constituted who can get away with it are favorites of the gods. It will be a comforting thought for the "Sons of Rest" to know that they have an exponent high in engineering circles.



ADRIAN W. STEVENS
31 Mercer Avenue, Plainfield, N. J.

Course:

Mechanical Engineering.
Graduated South Side High School 1916.
Newark Technical Evening School 1919-1921.
College of Engineering N. T. S. 1921-1924.

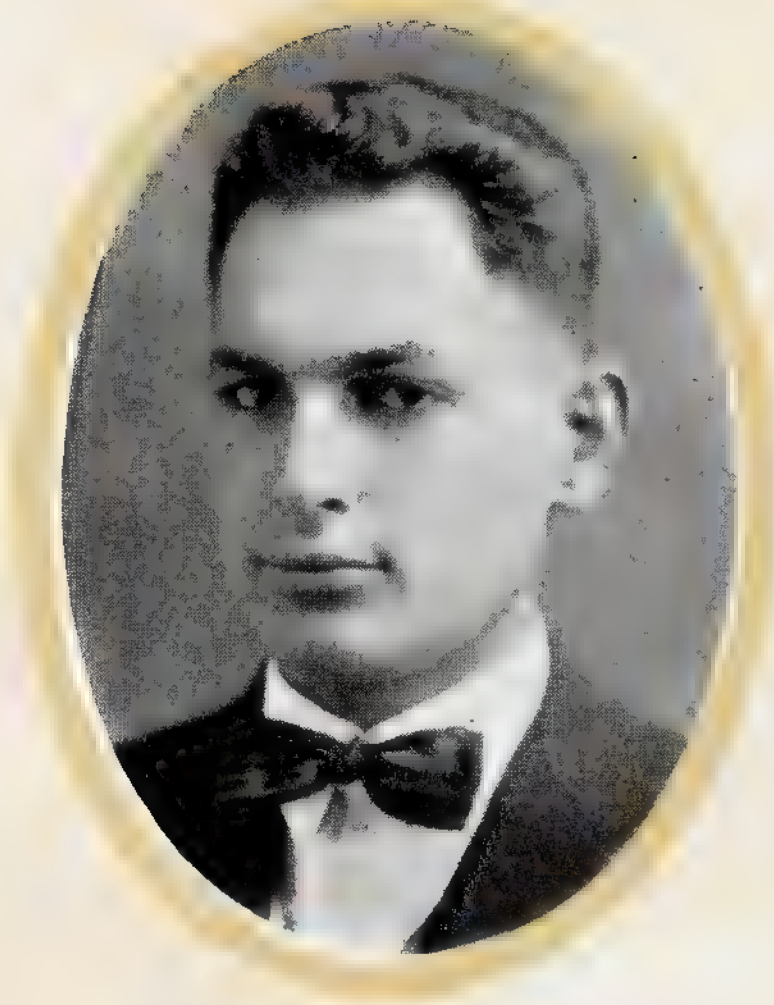
Co-operating Concerns:

Gould & Eberhardt.
Essex Station, Public Service Electric Company.

Honors:

Senior Dance Committee.
Senior Class Secretary.
Assistant Business Manager Kem-Lec-Mek.

The above is not the result of camera distortion nor has the subject ever been in a railroad accident. This is Steve's regular picture face, developed by consistent attendance at the Branford. He is a great seeker after beauty—a veritable connoisseur when it comes to picking them. Need we say more? In addition to this his chosen vocation, he toys with a text-book now and then and has accumulated enough information to escape the wrath of the Faculty. Steve bears out the maxim "He who goes slow, goes far (if he keeps going long enough)."



CHARLES A. SHULTZ
Railroad Avenue, Jamesburg, N. J.

Course:

Electrical Engineering.

Graduated Jamesburg High School 1918.

S. A. T. C. Rutgers 1918-1919.

Rutgers College 1919-1920.

College of Engineering N. T. S. 1920-1924.

Co-operating Concerns:

Seaboard By-Product Coke Company.

Public Service Electric Company.

Honors:

Lambda Chi Alpha Fraternity.

Vice-President Electrical Society.

Within this plain and honest looking example of mid-Jersey architecture there surges a wild and turbulent spirit, which manifests itself now and then, mostly then, in an orgy of some sort. The last time this spirit overcame him, Charlie thundered into Petty's and bel-lowed, "Gimme a malted milk." In his sober moments he acts as the guide and mentor of the Jamesburg Boy Scouts. Aside from these strenuous activities Charlie finds time to do a lot of studying. After all, it is only human for a man, especially for one who takes his work to heart, to skid at intervals from the straight and narrow.



ROBERT WIDDOP
46 Evelyn Avenue, Phillipsburg, N. J.

Course:

Mechanical Engineering.
Cayuga High School, Canada, 1916.
Detroit Institute of Technology 1919-1920.
College of Engineering N. T. S. 1920-1924.

Co-operating Concerns:

Edison Portland Cement Company.

Second Division, United States Army.
Ingersoll Rand Company.

Honors:

Editor-in-chief Kem-Lec-Mek.
Class Day Committee.

If "Bob" had been a pugilist he would have been called "One-Round Widdop" because he is singular in number and just about as round as they come. There is only one drawback, he is too good natured. All corpulent people are because they are too lazy to fight and too fat to run. As it is, Bob manages to worry along as a sort of mechanical engineer in a cement plant. This should prove to be a great relief to other industries.



ARTHUR L. VANDERLIP
14 Race Street, Hillside, N. J.

Course:

Electrical Engineering.

Graduated Hornell High School.

College of Engineering N. T. S. 1920-1924.

Co-operating Concerns:

Crocker-Wheeler Company.

77th Division, United States Army.

When a man stands high in the estimation of his classmates there is always a reason for it. Vanderlip has a habit of coming to about three minutes before the end of class with a bunch of questions which cause the professor in charge to miss a wonderful opportunity to stop talking. This, however, is not the reason for Vanderlip's high standing in the minds of the graduating class. If there is a reason, we want to know it, for he is admired by all of us.



*Over the falls and into the Whirlpool.
No more rivers to cross.*



CLASS HISTORY 1924

SOME years ago, in September, 1920, to be more definite, the main hall of our Academic building was nearly filled with a large group of young men whose faces wore a look of uncertainty and expectancy. But when a very dapper-looking man appeared and bade the members of the Freshman class to follow him, these faces lighted up and seemed to say, "Well, things are beginning to happen anyway"—and they did happen. The group that followed Professor Cummings spoke of themselves from that time on as "we."

Strangers to one another, we were unable to resent any action taken by the Sophomores to enforce the rules laid down for our guidance, but the very tyranny which we had to bear proved to be to our advantage for it forced us to seek out our fellow sufferers for mutual protection and thus it materially hastened our class organization. As Freshmen we centered our efforts into getting well established in our academic work. This monopolized our time to such an extent that the class of 1924 was not prominent in either social or athletic events during its first year.

When we became Sophomores we had learned how to do our work efficiently and it was then that we considered some activities as a class. A host of husky and formidable Freshmen suggested an inter-class football game. A survey of our ranks disclosed a few men who could play football and a few more who expressed their willingness to try. With this pitiful aggregation we met the Freshmen and were completely defeated. The feature of the game was the grit of our men, every one of whom played throughout the entire contest. This was necessary because we had no substitutes and the only excuse that anyone had for quitting was sudden death. As it was, ten of us repeatedly stood around on

the field waiting for the eleventh to come to so that we could resume the game. The Freshman-Sophomore game has since become an annual affair and stands as a monument to the martyrs of 1924. In December of our second year we united with the Juniors in giving a very successful dance to the Freshmen. We terminated our social activities for that year by holding a very successful Sophomore dance.

As Juniors we made our first contact with industry under the co-operative system and suffered complete upset until we grew accustomed to the system of alternating work and classes. We gave a smoker in honor of the Freshman class on the evening of the annual football game. We handed them smokes, cider and doughnuts along with a lot of free advice, an ordeal which we did not have to sit through when we were Freshmen.

The struggle and confusion of our undergraduate years is finally dying away and we pause to consider our losses. Of forty men who started with us as Freshmen only fourteen survived. The few of us left still cherish the memory of those who started with us.

Senior activities require greater effort and carry more responsibility than those of undergraduate years. The outstanding successes of this year are the publishing of the college year book and the Senior ball. The gaiety of Senior Week warps the ship of the class into the harbor towards which it set sail four years ago.

The four years we have spent at "Tech" have been well spent. We have learned many of the things which are vital to success in any field of endeavor. The Dean and the Faculty have struggled patiently to give to us a true and ennobled conception of our obligations to society and to our profession. It shall be our aim to justify their efforts.



Front Row (left to right)—H. Hosking; F. Damitz, President; J. C. Peet, Faculty Advisor; W. VanderSchaaf, R. Morganroth. Second Row—F. Jillard, K. Marshall, A. Davenport, H. Pollard, E. L. Burnett, P. Cobb, C. Beyer, D. Collard, H. Hesse, F. Borman, C. Bauer, L. Smith, C. Fausel.

THE JUNIOR CLASS

IN the Fall of 1921 there entered the College a band of raw recruits—rough stock—destined to have a notable part in the development of the school, and also to have the school produce great changes in them, both individually and as a class. The Class of '25 organized, elected officers and very soon established itself as a part of the production plan of the school. Among the first operations to take place was the annual football game, Freshmen against Sophomores. This could very well be termed a "rough turn" but for the fact that we

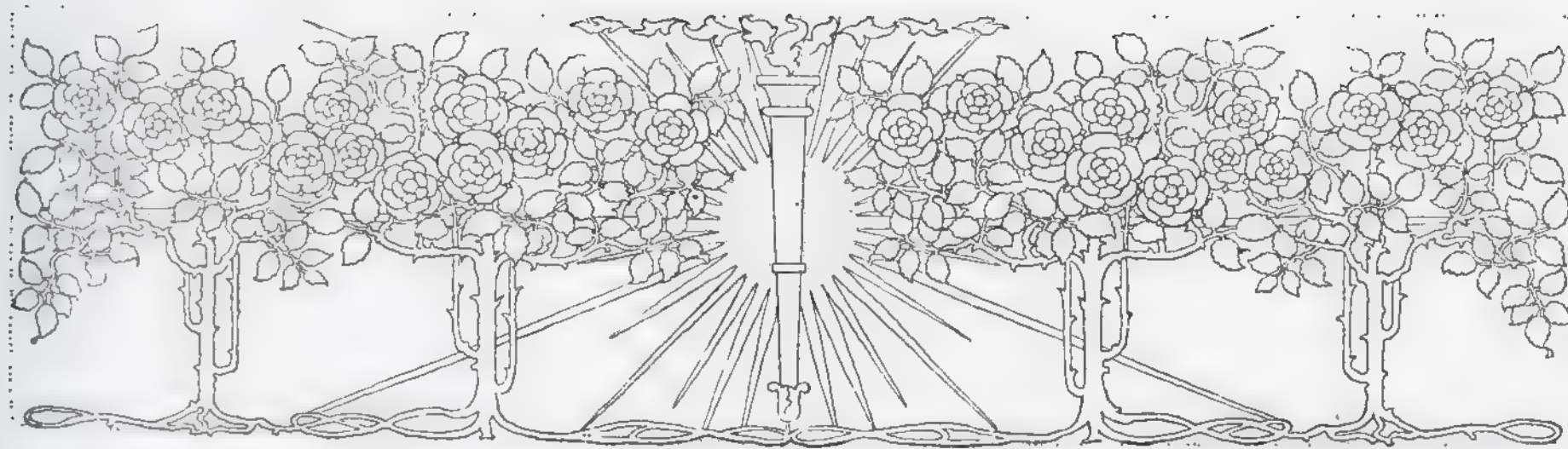
dulled the cut by beating our opponents. The affair was pleasantly lubricated the same evening at the Junior Smoker, our first social event of a college nature. Here we learned for the first time of the other side of college curricula. The grind of our work took off some of the rough surface, and by the end of the year we were shaped up to a working surface, and ready for the summer co-operative period. During that time, a sort of breathing spell, we were trued up for the ensuing work at school. There is no better way of finding a man who can stand on his

own feet than to take all the props from under him. And therein lies the reason for industrial training during college years.

Those of us who remained after the year of hard knocks began our Sophomore year ready for the drilling which we received during the term. We again conquered in the football game, defeating our new Freshmen, and gaining the right of enforcing the Freshman rules. The Smoker again introduced a Freshman class to the school, this time fresh from the athletic defeat, that did much for their solidarity in the days to follow. During this year we also received a preliminary polishing through the dances that were given by the various classes, including several dances conducted by our own class. The

June dance of the Sophomore class established beyond question the criterion for future college dances.

The Junior, the present year of our class, connotes the buffing and polishing period, after which there comes the final finish and ultimate release as Seniors. This year has seen us in the co-operative industries, establishing contacts, studying factory methods, and learning the how and the why for the myriads of industrial problems we encountered. The outstanding event of the year, socially, was the Junior Prom, held at the Robert Treat Hotel. This dance, with its attendant formalities, was the most successful of its nature and established a mark of rivalry for the future Junior classes.



CO-OPERATIVE IMPRESSIONS BY A JUNIOR

LOOKING back over the last three years, the period between matriculation and the present, let us pause to analyze what has happened during that period. The following is a brief survey of what we believe to be the most important developments effected by our engineering education under the co-operative system of our Alma Mater, The College of Engineering of The Newark Technical School.

The work of the first two years at our school does not differ materially from that of other colleges except that it gives a wider range of material so that the student entering the co-operative scheme in the Junior year may have sufficient grounding in the fundamentals of engineering. As a result of the first two years' work, the student about to enter the co-operative system has the ability to learn; the first year of college life demanded an immense amount of effort to get the assignments completed. Efficiency in study was rather low until we developed a system which enabled us to grasp the fundamentals with facility. It calls to mind the story told us by a prominent engineering educator. The story goes that an engineer, called upon to give professional advice to the directors of an organization contemplating a certain project, was required to present his report twenty-four hours after notification. The subject was of an exhaustive nature requiring the use of a large number of references. He asked himself, "Is it possible to peruse all available references?" Evidently he could not do so. The thing to do was to determine the most widely accepted reference on the subject and then to establish the facts without making any attempt to acquire the entire descriptive matter. He noted the principal points on paper, arranged them and then proceeded to analyze. After establishing the fundamentals in his mind he introduced his own ideas formed by previous experiences and then compiled his report.

This young engineer showed that he had sufficient fundamental knowledge in engineering to know what to seek and how to seek it; he had the ability to learn.

One of the many traits acquired through our engineering training is the ability to learn. Henry Adams says, "What one knows is, in youth, of little moment; they know enough who know how to learn."

Technical knowledge characterizes the engineering profession but there are many other essentials. Our term "technical knowledge" does not mean the encyclopedic type of knowledge. This, the system at our college discourages, for it does not develop mental independence. The advancement of society is accomplished partly through the use of old ideas, but mainly through the development of original conceptions.

The acquired technical knowledge is but material upon which we work for the purpose of developing our mentalities; specialization upon specific problems is not practiced. By mental development is meant: first, the disciplining of the mind to enable it to carry a logical train of reasoning from the various premises to the correct solution; second, the development of the self-confidence which enables it to form an opinion concerning the validity and importance of whatever we read.

Our training develops a sceptical viewpoint—a requisite for success in engineering. The study of sciences tends to establish the truth of the laws by bringing home the idea that their formulation is the fruit of actual experience, and not the product of vivid imagination. However, imagination is a desirable attribute for the engineer since some laws are best illustrated by hypothetical cases. Imaginative power has figured largely in scientific development.

Our co-operative system of education changes the high school boy of a limited outlook to a man of balanced viewpoint who is ready to go out into the world on a competitive basis, able to assume the responsibilities of a practical engineer.

Through childhood and early youth we depend upon the thoughts and guidance of others, but in college we were made to feel the necessity for self-dependence. As an illustration of the way in which the student is trained to as-





WESTON ELECTRICAL INSTRUMENT CO.

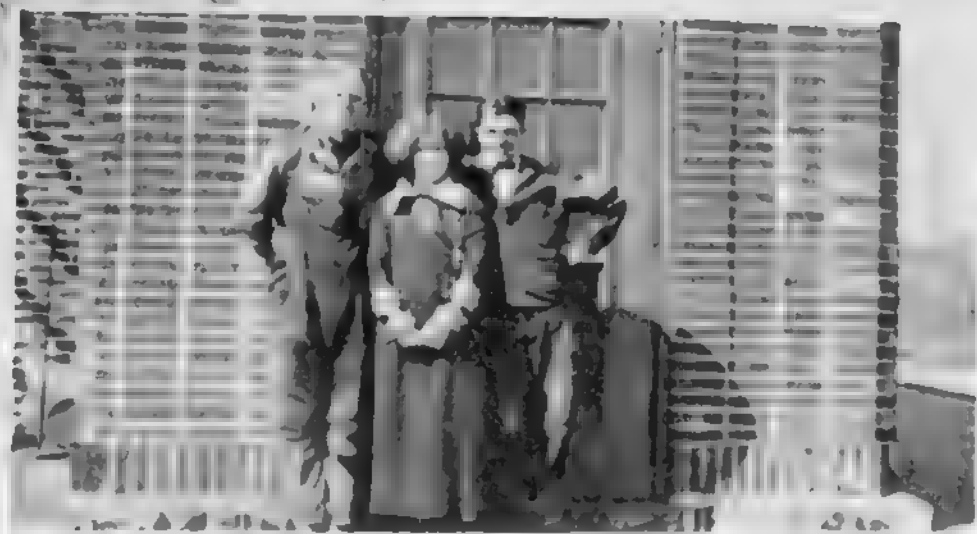
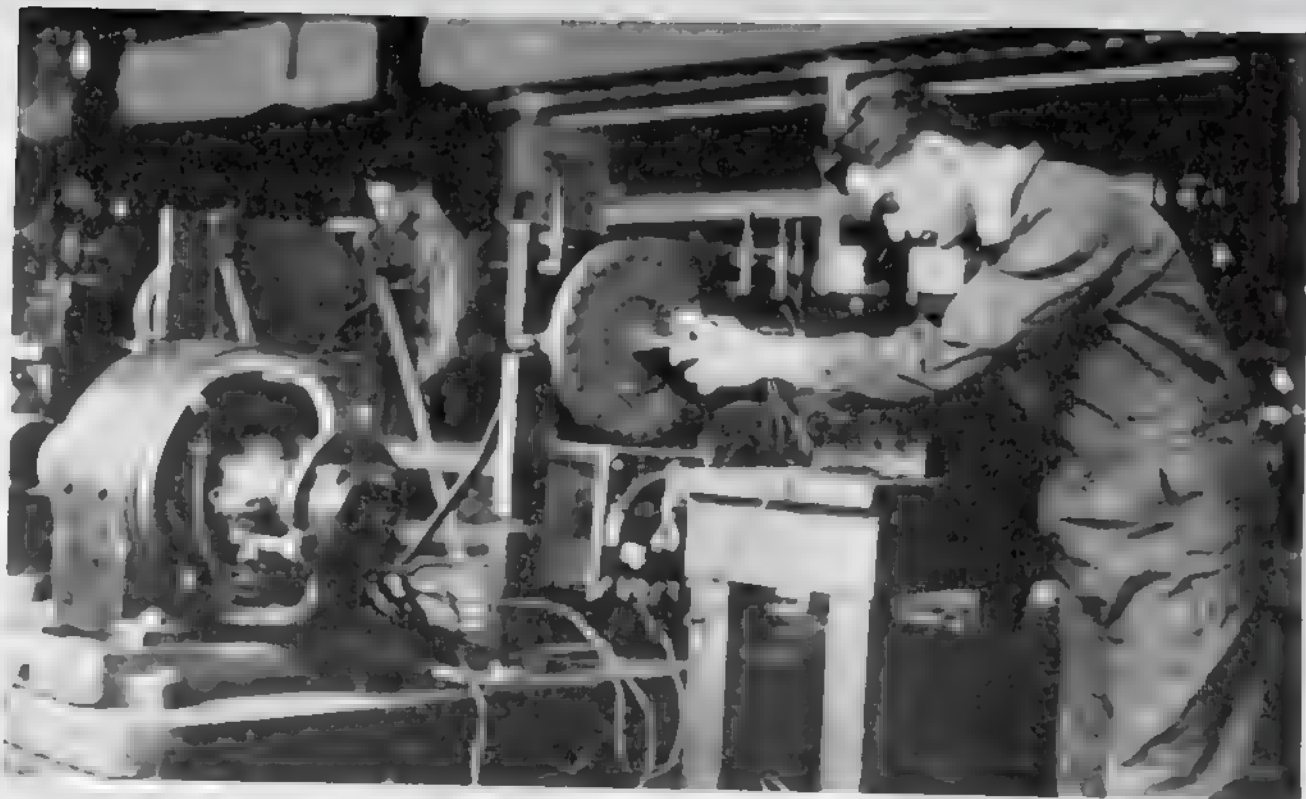
sume responsibilities for his acts, we might point out that no definite number of absences is set beyond which scholastic standing is lost. The student must determine whether he can afford to cut a class. Should he absent himself it is assumed that he has done so for some purpose which he deems of greater importance than his attendance: he assumes the responsibility for his decision as to the relative importance.

The student entering industry under the co-operative system has a grounding for two years of academic training in engineering fundamentals, enriched by six months of practical procedure obtained during the vacation periods after the Freshman and the Sophomore years.

The development of modern industry to the present stage of specialization has brought out many complex problems, among which is the

need for leaders possessing the ability to solve problems of adjustment and re-adjustment. The attempt of our college to develop men to meet these needs has been highly successful. We shall endeavor to tell how these industrial requirements are met. It is fitting at this point to add a few words of appreciation of our co-operative concerns who have made the development of the co-operative system possible. The companies have helpfully given the student exceptional opportunities to study practical procedure at their plants.

The student during his Junior year spends alternate two-week periods in the industry and in academic work. He is routed through an entire plant, spending as much time in each department as is deemed advisable by the co-operative representative in charge of co-operators, and





NAIRN LINOLEUM CO.

by the co-ordinator, the school representative, who visits the plant during each period.

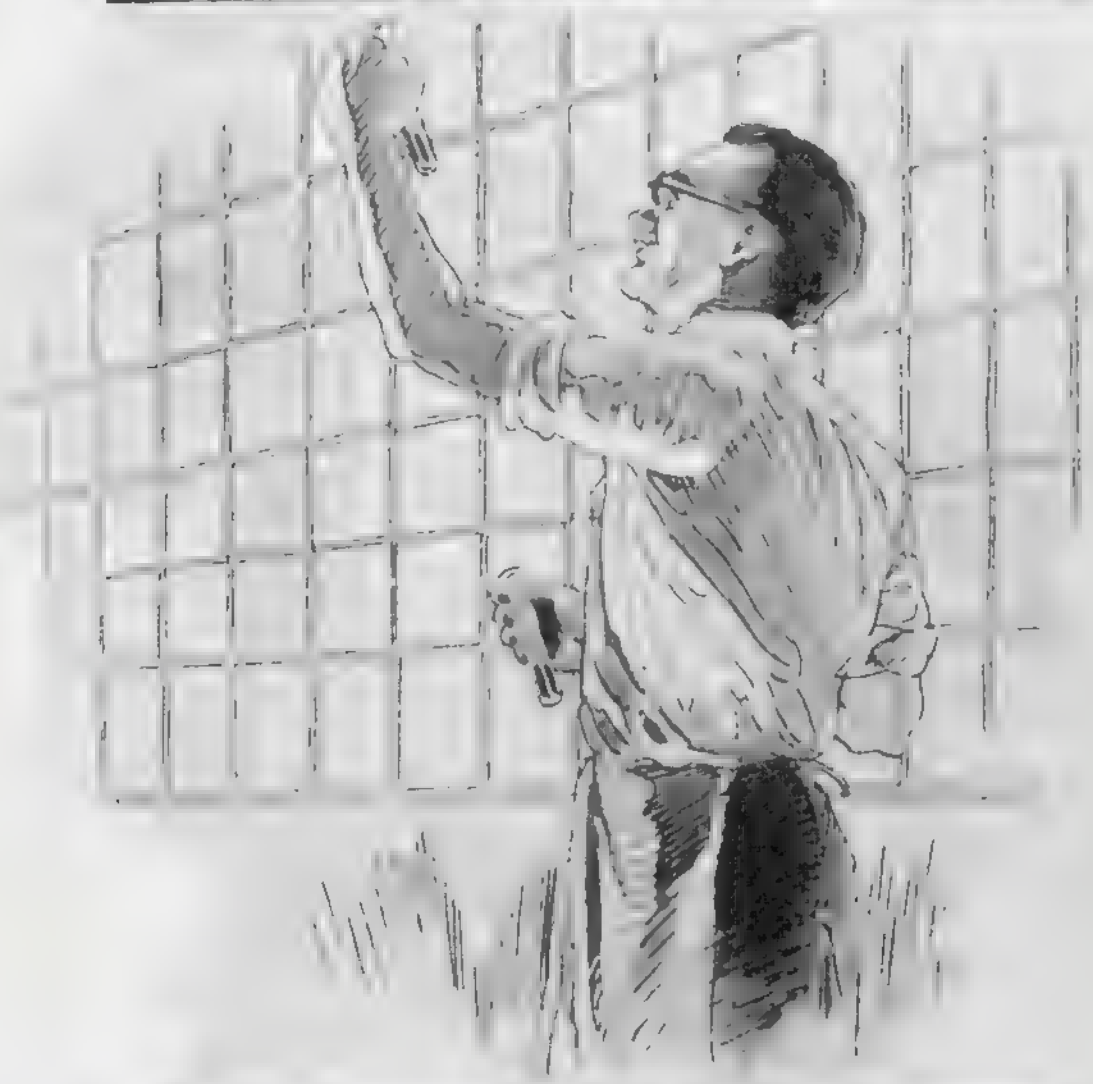
The introduction of the student into industry causes him to realize the importance of his education, and the necessity for becoming more useful to society and to himself. Goethe aptly expresses the idea which underlies the student's determination to secure a higher education—"Make good thy standing place and move the world."

There is every class of position in a modern industrial plant and in its personnel every type of man from the laborer to the executive is needed.

Mental reactions differ as widely as types of work; and to the student these reactions constitute a valuable and interesting study. Quoting Emerson—"Everybody knows as much as a savant. The rude minds are scrawled over with

facts, with thoughts. They shall one day bring a lantern and read the inscriptions." Every man in the degree in which he has wit and culture finds his curiosity inflamed concerning the modes of living and thinking of men, especially of those classes whose minds have not been subdued by the drill of school education. The student who has come into contact with the environment created in our modern plant, learns man and matures with greater rapidity during his entire education.

Let us stop to consider the desirable characteristics developed as a result of the contacts with the personnel of an industrial plant. The student soon learns that each individual is an entity and, if you please, a new power—something which differentiates him from any individual who has gone before. Realizing this the student is lead



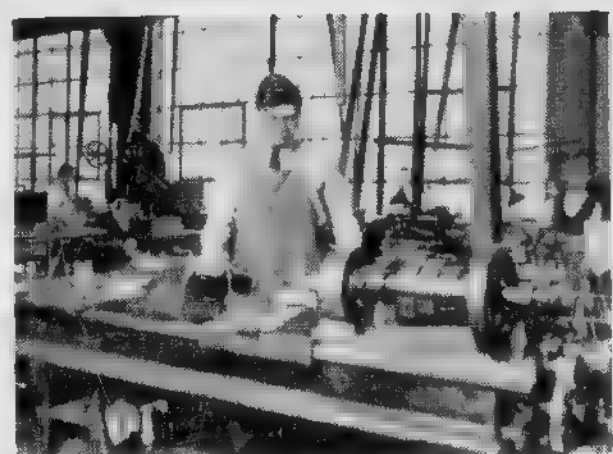
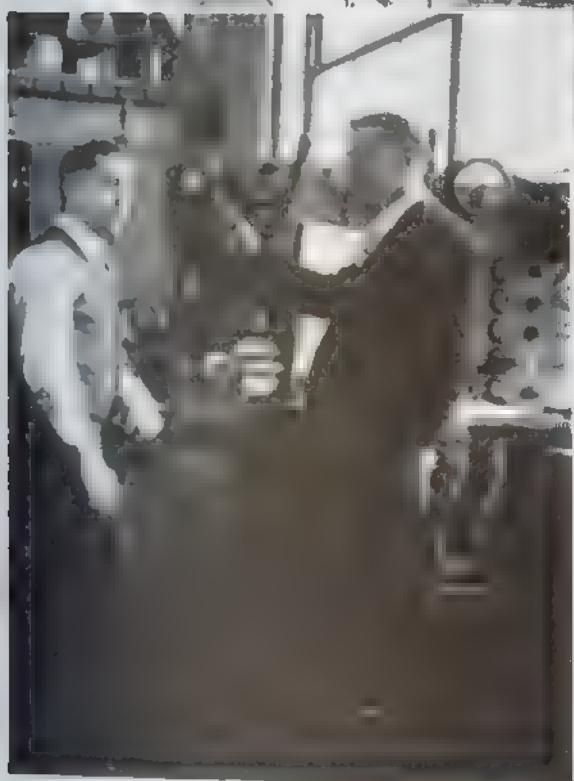
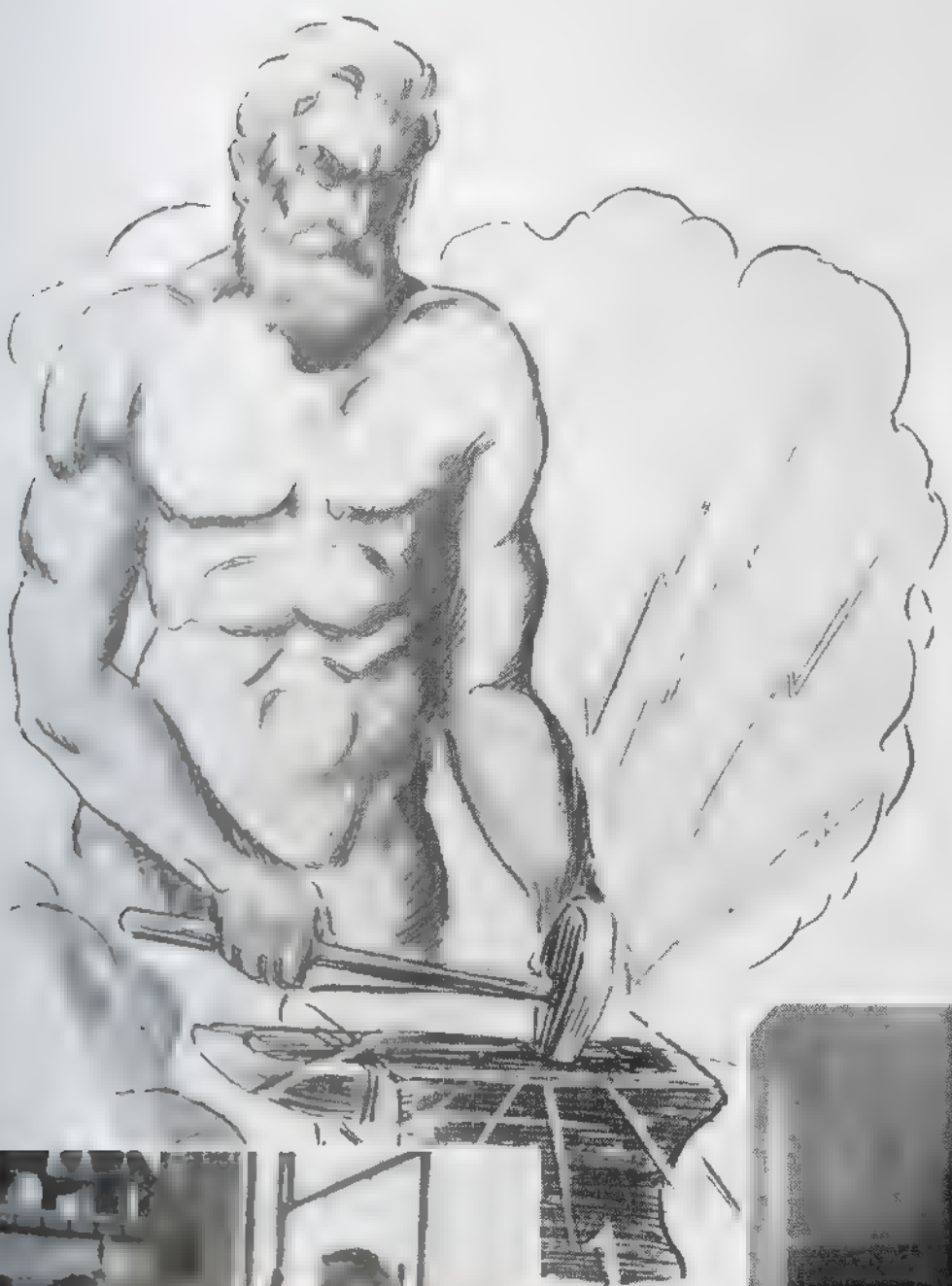


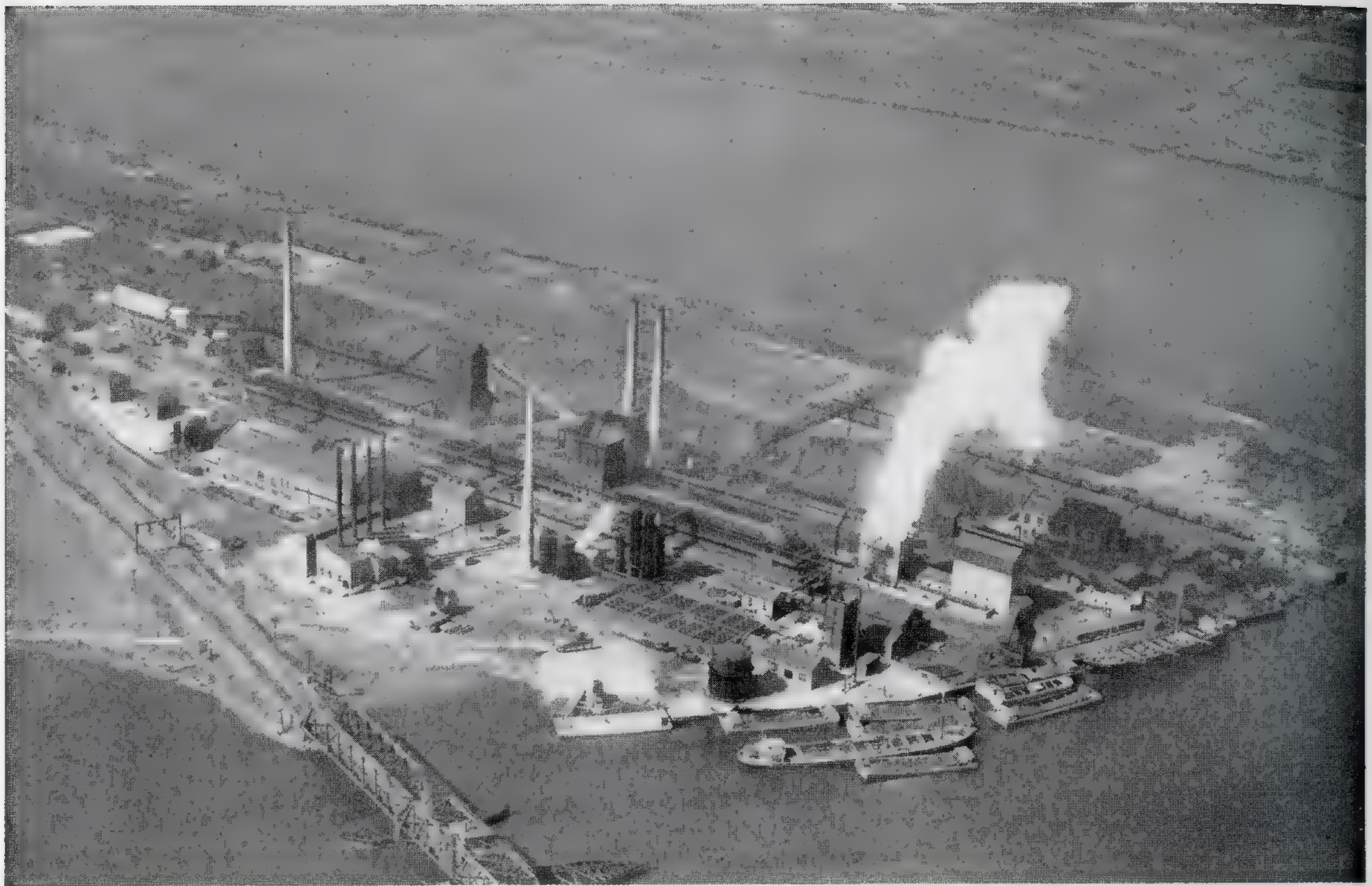
CROCKER-WHEELER CO.

to analyze the various individuals, distinguishing the desirable and the undesirable characteristics in each. As a matter of natural curiosity he makes a self-analysis in order to determine his own character, giving him a more intimate knowledge of his soul—a clearer light upon humanity. Self analysis tends to develop what we choose to call “internal honesty,” the capacity to recognize with truth and sincerity one’s own limitations. The understanding of his own limitations enables the student to understand the limitations of others and to come to a sympathetic understanding. It also causes him to apprise other personalities at their true worth and develops in him a greater appreciation for their thoughts and abilities. As a result of intimate association, the student is enabled to make com-

parisons and to determine the proper place for various types.

The time element is a great factor, perhaps the most important, and as a result of the synchronizing of the practical procedure and our theoretical education through co-operation, it is possible to say that the student has been able to give two years of his life to the application of his education to the needs of society. A student graduating from the usual four-year college course must, after graduation, go through a two-year Business-Freshman Course before he is ready to make a responsible connection with a concern, whereas the co-operative student has laid the foundation of his business career. A final interesting feature in this connection is the way in which time is conserved by the direct application of theory





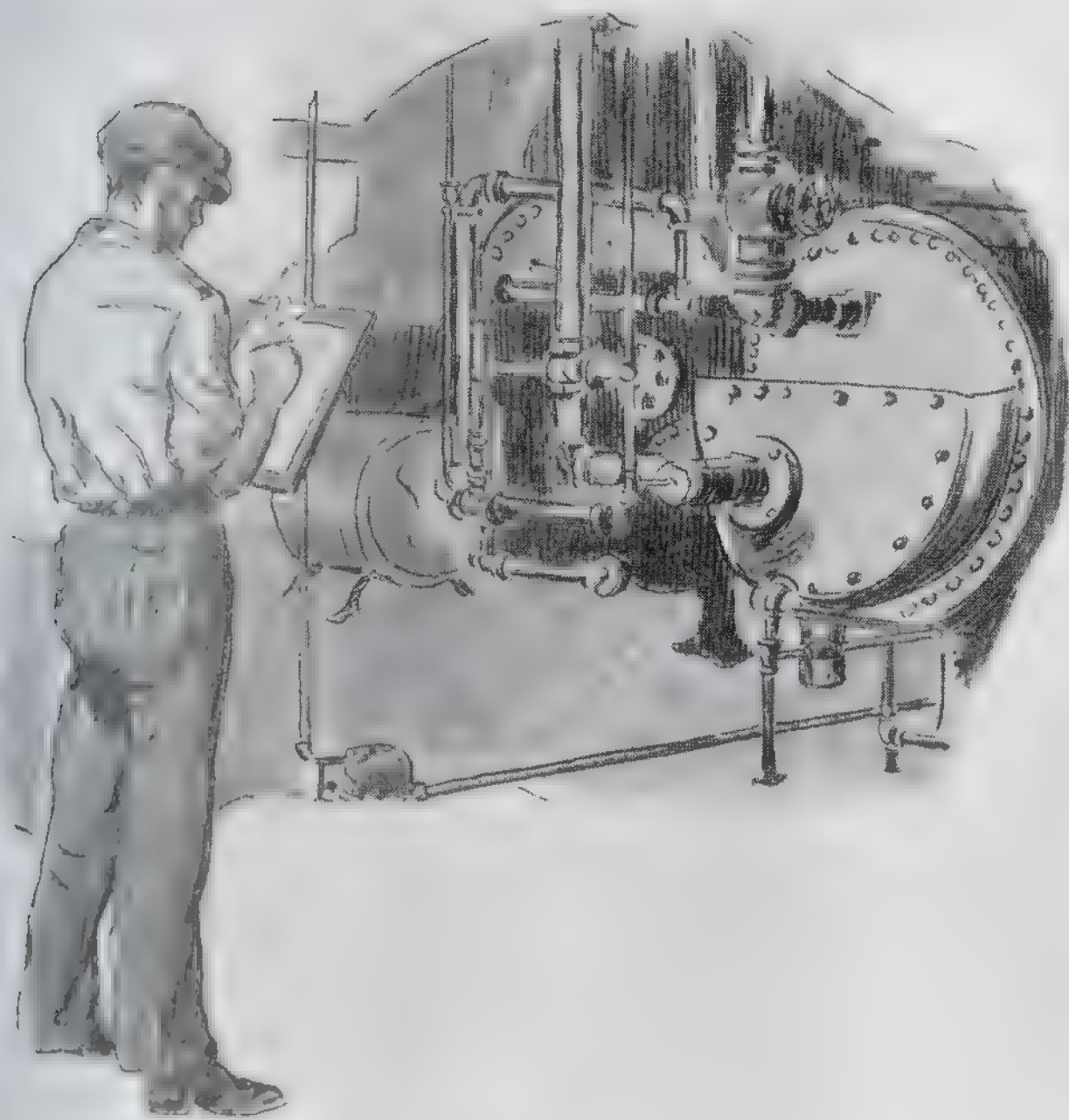
SEABOARD BY-PRODUCT COKE CO.

at the time of acquisition; the theoretical possibilities of a problem are mastered in the school, and the limitations of practice are mastered in the industry.

This, briefly, is the truth as we see it—the faint outline of a painter's charcoal upon a new

canvas—the picture still vague and undefined. We are but students in a great and noble art, each striving

“To draw the Thing as he sees It,
For the God of Things as they are.”





ANOTHER CO-OPERATIVE CONCERN
THE SCHOOL LABORATORY BUILDING



Front Row (left to right)—A. Kopf, M. Runyon, V. Ripley, President; F. N. Entwisle, Faculty Advisor; H. Probst, M. Monahan. Second Row—M. Riemer, H. Precheur, J. Lee, F. Cox, J. Brendlen, J. Ditsch, W. Perry, R. Newton. Third Row—H. Goellner, V. Edwards, F. Rosenfelder, E. Fisher, F. Orosz, J. Coe.

THE CLASS OF 1926

THE Class of 1926 returned to the college in the Fall of 1923 after spending their first summer in the various industries. In numbers we were but half of the care-free group which entered the halls of this institution for the first time in September, 1922, but were a stronger body as a result of our academic and industrial experience. We were prepared for what was before us and, plunging into our studies, struck out vigorously for the goal which we were now able to distinguish.

It falls upon the Sophomore class of all col-

leges to regulate and, if necessary, discipline the incoming class in order to curb its over-boisterous spirit and to impress upon it the dignity of its calling. To accomplish this without excessive bloodshed or tonsorial operations is often an impossible task. Thanks to the smooth functioning of our own compact organization, and also to the fact that most of the Freshman class are inclined to respect precedent, we were able to enforce the Freshman Rules without severely straining the official relations between the classes. Although interclass rivalry always runs high, the

real animosity was disposed of in the annual tug-of-war, held on Parents' Day, in which practically every member of both classes participated.

In this college the academic work during the second year prevents, to a great extent, the social and athletic activities which are characteristic of the Sophomore classes in other institutions. However, we have achieved success in both activities. We were able to win the big inter-class event—the tug-of-war—and also the inter-class basketball championship. We conducted one dance in the Fall, and anticipate holding another in the Spring, which we hope will further enhance our reputation in this branch of college activity.

To recount the academic, social, or athletic activities of this group of embryo engineers which constitutes our class, is in a way futile. Although these activities are not mean, they are not the ones of which we are most proud and which we shall value most highly in the coming

years. What we shall want to remember, when all this is but a memory, is that spirit of fellowship which prevails among us and which makes us a close-knit organization. To the observer within the college this is rapidly apparent, but it is difficult to convey a picture of our fraternal feeling to one without the walls of this institution.

The class presents the unusual spectacle of a group of men not broken into "Cliques" or self-centered groups. There are no cliques, no combinations; petty grudges are not cherished by one member against another. The fact is that the Sophomore class is an informal fraternity, one for all, all for the college. This friendly feeling toward our fellow students, combined with sound technical and industrial training, carried with us when we break into the work of our chosen profession will, we hope, be responsible for signal success which will add to the reputation of our Alma Mater.





Front Row (left to right)—J. A. Kopesky, G. W. Ditzel, R. Cox, S. Weinfeld, A. Cinci, E. Toth. Second Row—S. Fishman, J. J. Drukker, H. W. Dierman, Secretary; R. Jenkins, President; C. Forsythe, Vice-President; H. R. LeGrande, Treasurer. Third Row—G. L. Kane, P. L. Cunliffe, R. A. Brader, F. Wolpert, H. G. Patton, A. Werner, E. Weinstein, G. Thurburn, H. W. Willhart, A. Mueller, J. E. Cane. Fourth Row—H. Kruger, W. Hull, A. A. VanVoorhees, W. Opdyke, R. R. Winans, H. B. Axtell, E. G. Smith, F. Schetty, M. G. Elias, N. Pico, L. Koch.

CLASS OF 1927

WE came, we studied, we conquered—not yet! In September, 1923, we entered upon a new field of endeavor where we found ourselves inadequately prepared to cope with the problems that infested our new environment. As a body we were greatly scared at the thought of being associated with a unique institution of higher learning. This feeling arose from the new ideals imparted to us. One of our new principles is to refrain if possible from war with the Sophomores; another to voluntarily give

up the ambition to cause fights and to avoid tonsorial operations. We have found that the path of peace lends itself to the atmosphere of study much more than scratching a bald head or nursing a black eye.

The peculiar atmosphere of the college is one of concentrated work with a generous feeling of good fellowship and jollity. The wild hilarity of ye college man as pictured in song and story is but a myth, the foolishness and absurdities are unnecessary and we find that we get along very

well without them. A sense of duty and responsibility has overtaken us, not alone from the talks by the Dean and the Faculty but from reflecting upon the inscriptions which decorate our walls.

The great annual classic, the football game between the Sophomores and the Freshmen, ended in a victory for us and served as a means for getting acquainted. With Robert Jenkins temporary chairman the class officers elected were: President, R. Jenkins; Vice-President, Forsythe; Treasurer, Falconer; Secretary, Le Grand. Patton and Cox were elected as class representatives in the Athletic Association. Mr. A. P. Roberts was elected Faculty Advisor.

Class spirit is a disease and the class organization depends upon how seriously its members are affected. The members of this class must attend the meetings, work on committees, and show the proper spirit of the school by helping the officers in transacting business. It is necessary for the class members to support all the class activities in order to appreciate the fullness of college life. Lectures and sermons from the Faculty and upper-classmen will not alleviate our lack of interest, so let's get into the business of the class the same as we got into football, basketball and general athletics. Our school is the most im-

portant thing in our young lives at present so why not make it the best?

With only a few days of hectic practice and with a coach from the Junior class we were able to vanquish the aggressive Sophomores. The Sophs were as much favored as the Freshmen and the pep and teamwork shown on both teams made a great game for the record-breaking crowd of spectators. The good spirit and sportsmanship displayed at the game were of the highest order and typical of the college.

On Parents' Day we were fortunate enough to win the cane sprints under the guidance of Mr. Roberts, but we lost out in the tug-of-war. We were not successful in basketball and keenly felt the loss of some of the athletes from our class.

A word about our Faculty. We have come to know Dean Cullimore and the ideals of which he is an exponent through several addresses at convocations. Behind the Dean is the Faculty, everyone working for our welfare and trying to get us to assimilate the principles which make for character and success.

A year is but a short time in which to transfer our loyalty from old Alma Maters to the College of Engineering but we feel that the college will take all the spirit we can give it.

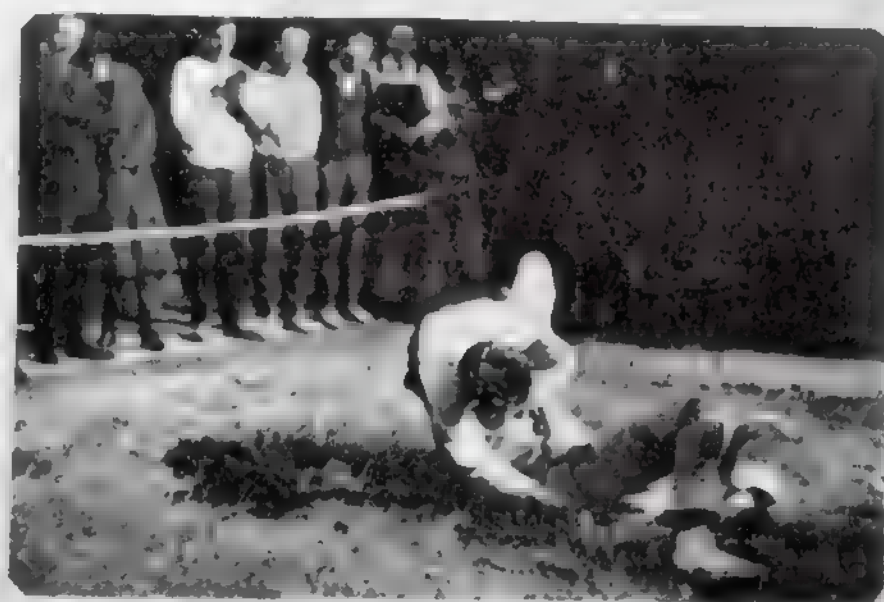


FRESHMAN FOOTBALL

ATHLETICS



SOPHOMORE TUG-OF-WAR



FLYWEIGHT CANE SPREE



FRESHMAN TUG-OF-WAR



SOPHOMORE FOOTBALL



SOPH. ANCHOR



HEAVYWEIGHT CANE SPREE



MIDDLEWEIGHT CANE SPREE

ATHLETICS



SINCE the last issue of this annual our athletic outlook has broadened considerably. The first event of the fall semester was the annual Freshman-Sophomore football game. The "Frosh" won by a score of 20 to 13.

The following weeks were spent in practice for athletic events held on Parents' Day, Nov. 28, 1923. The events scheduled were the annual Sophomore-Freshman tug-of-war, an inter-class basketball game, and a series of cane sprints. The veteran Sophomore team won the tug-of-war while the Freshmen were victorious in all of the cane sprints.

Then came a period of preparation for basketball. Our facilities for athletic activities are far from ample. To the men interested in a given branch of athletics falls the honor of providing themselves with equipment and a place in which to play. After practice, which was at times shortened by our laboratory periods, a series of inter-class games was started. The Freshmen won the inter-class title and contributed largely to the team which was then organized. Our first game, with the Newark Y. M. C. A., we won by a score of 36 to

32. Two weeks later we met the Junior 'Varsity of Stevens' Institute. This game showed the importance of good condition and all-around development. Our fellows put up a splendid game and were leading at one time, but could not stand the pace set by the better developed Stevens' men. The final score was 33 to 28. Our final outside game was a return game with the Newark Y. M. C. A., which we won by a score of 58 to 15. The success of the season of 1923-24 cannot be fairly judged by

the scores nor by the limited number of outside games played. There was evolved something of paramount importance to our school—morale. The spirit and sportsmanship displayed throughout the season was of the best. Despite the lack of equipment and time for intensive training our showing was good.

At the time this goes to press the baseball season is barely begun. The first game, between the Frosh and the Sophs, resulted in an 11 to 2 victory for the second year men. Considering the available material this season should prove successful.





TO THOSE MEN WHO STRIVE DAILY
TO REVEAL TO US THE MYSTERIES
OF SCIENCE AND THE PRINCIPLES OF
HUMAN RELATIONS—OUR FACULTY.



ADMINISTRATION



ALLAN R. CULLIMORE
S.B. in Civil Engineering
(Mass. Institute of Technology)

*Dean of the Faculty,
Director Newark Technical School*



FRED W. LAVENBURG
Supervisor of Co-operative Work



JOHN M. PIERCE
Registrar and Recorder



JAMES C. PEET
E.E. (Syracuse)
*Professor of
Electrical Engineering*

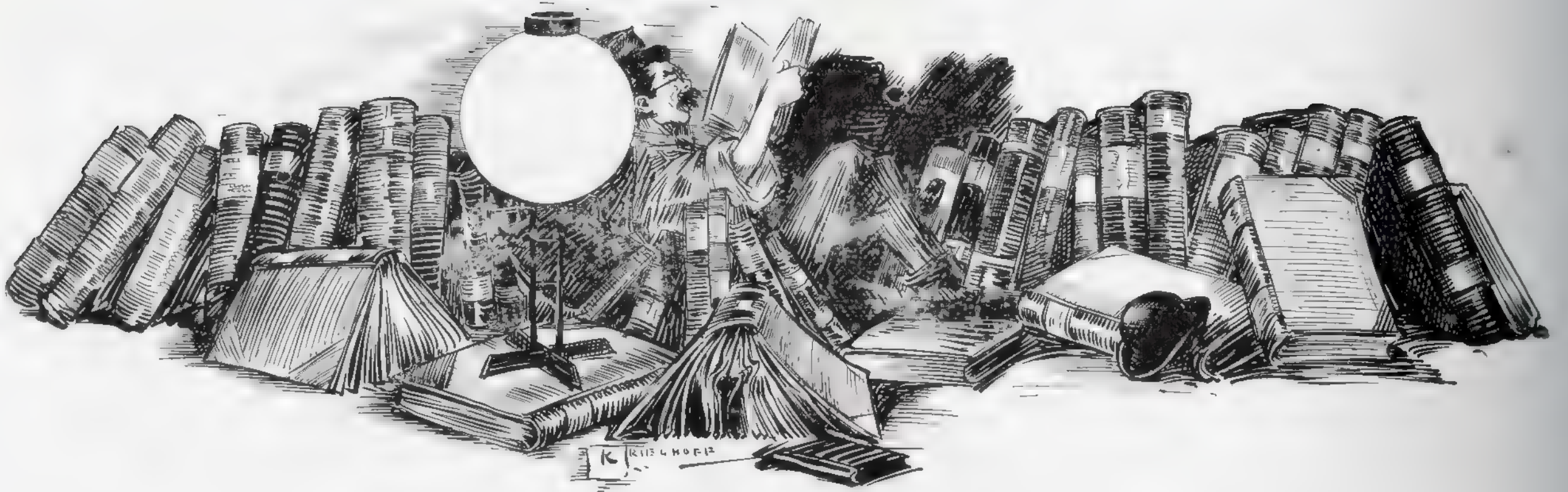
DEPARTMENT
OF
ELECTRICAL
ENGINEERING



WALTER KRAUSNICK
S.B. in Electrical Engineering
(University of Missouri)
*Associate Professor of
Electricity*



ALBERT A. NIMS
B.S., E.E. (Worcester Polytechnic
Institute)
*Assistant Professor of
Electrical Engineering*



ENGLISH AND PHYSICS DEPARTMENTS



H. GRAHAM DUBOIS
A.B., A.M. (Johns Hopkins)
Professor of English



FRANK N. ENTWISLE
C.E. (Princeton)
Associate Professor of Physics



BEDROSS KOSHKARIAN
A.B. (Euphrates College), A.M. (Yale)
*Associate Professor of Applied
Mathematics*



HAROLD N. CUMMINGS
A.B. (Bates), S.B. in Civil Engineering
(Mass. Institute of Technology)
Professor of Applied Mathematics



H. H. METZENHEIM
B.S., E.E. (Cooper Union)
*Instructor in Mechanics, Mathematics and
Electricity*

DEPARTMENT
OF
APPLIED
MATHEMATICS



MECHANICAL ENGINEERING DEPARTMENT



A. PERRY ROBERTS
M.E. (Stevens Institute)
*Instructor in Mechanical Drawing and
Machine Design*



WILLIAM NETSCHERT, JR.
M.E. (Stevens Institute)
Professor of Mechanical Engineering



CHEMICAL
ENGINEERING
DEPARTMENT



V. T. STEWART
P.H.B. (Syracuse), S.B. (Mass. Institute
of Technology)
Professor of Chemical Engineering



JAMES A. BRADLEY
A.B., A.M. (Harvard)
*Associate Professor of Chemical Engi-
neering*



FREDERICK D. CRANE
A.B., A.M. (Union College), Ph.D. (Johns
Hopkins)
Instructor in Industrial Chemistry

FRATERNITIES AND SOCIETIES

TΣM

W. Perry, '26
V. Ripley, '26
F. Orosz, '26
R. Newton, '26
M. Runyon, '26
A. Kopf, '26
H. Goellner, '26

ΦΔΣ

I. Bergman, '24
R. Brader, '27
H. Dierman, '27
M. Elias, '27
L. Koch, '27
A. S. Kopf, '26
L. Morch, '24
F. Wolpert

K. V. A.

C. Bauer
F. Borman
P. Cobb
E. Cox
P. Cunliffe
J. Ditsch
L. Edwards
R. Jenkins
J. Nile
H. Patton
C. Shultz
L. Smith
E. Weinstein

BAΘ

F. W. Borman, '25
F. Damitz, '25
F. R. Fogel, '24
R. W. Jenkins, '27
H. G. Patton, '27
L. J. Patterson, '24
W. L. Perrine, '24
H. B. Pollard, '25
L. D. Smith, '25
W. D. Vanderschaaf, '25

F. O. S. R.

Active
All Students
Honorary
Dean Cullimore and Faculty
Associate
Graduates

COLLEGE ROSTER

Axtell, H. B., Ch.E. '27
Balinson, L., Ch.E. '27
Bauer, C., E.E. '25
Bergman, I., Ch.E. '24
Beyer, C. M., M.E. '25
Boorujy, G., E.E. '24
Borman, F. W., E.E. '25
Brendlen, J., Ch.E. '26
Brader, R. A., E.E. '27
Burnett, E. L., M.E. '25.
Cenci, A., E.E. '27
Coe, J. M., Ch.E. '26
Cobb, P. G., E.E. '25
Collard, D., Ch.E. '25
Cox, R., M.E. '27
Cox, F. P., E.E. '26
Cunliffe, P. L., E.E. '27
Davis, C., Ch.E. '24
Damitz, F., Ch.E. '25
Davenport, G., M.E. '25
Dierman, H. W., M.E. '27
Ditzel, G. W., E.E. '27
Ditsch, J. F., E.E. '26
Drukker, J. J., Ch.E. '27
Elias, M. J., M.E. '27
Edwards, L. V., E.E. '26
Fausel, C. A., M.E. '25
Fisher, E. C., E.E. '26
Fishman, S., E.E. '27
Fogel, F. R., M.E. '24
Forsythe, C., E.E. '27

Goellner, H. K., M.E. '26
Hess, E., Ch.E. '27
Hesse, H. C., M.E. '25
Hosking, H., E.E. '25
Hull, W., M.E. '27
Huneke, F. R., Ch.E. '26
Jenkins, R., M.E. '27
Jillard, F. A., M.E. '25
Kane, G. L., Ch.E. '27
Kane, J. E., M.E. '27
Koch, L., E.E. '27
Kopesky, J. A., Ch.E. '27
Kopf, A. F., M.E. '26
Kruger, H., Ch.E. '27
LeGrande, H. J., M.E. '27
Lee, C. J., E.E. '26
MacDonald, P. F., E.E. '26
Mannheim, C. P., Ch.E. '24
Marshall, K., M.E. '25
Monahan, M., M.E. '26
Morganroth, R., M.E. '25
Mosch, L., Ch.E. '24
Mueller, A., Ch.E. '27
Nile, J., E.E. '24
Newton, R. B., M.E. '26
Opdyke, W., M.E. '27
Orosz, F., Ch.E. '26
Patterson, L. J., Ch.E. '24
Patton, H. G., E.E. '27
Perrine, W. L., Ch.E. '24
Perry, W. K., M.E. '26

Pico, N., E.E. '27
Pollard, H. B., M.E. '25
Precheur, H. V., E.E. '26
Probst, H. O., E.E. '26
Reigenstreich, S., E.E. '24
Riemer, A., E.E. '26
Riemer, F. W., E.E. '26
Ripley, V. H., M.E. '26
Rosamilia, D., E.E. '25
Rosenfelder, F. G., E.E. '26
Rudiger, H. G., E.E. '27
Runyon, M. F., M.E. '26
Schetty, F., Ch.E. '27
Shultz, C. A., E.E. '24
Smith, E. G., E.E. '27
Smith, L. D., E.E. '25
Stevens, A. W., M.E. '24
Thorburn, G., M.E. '27
Toth, E., E.E. '27
Ulanetsky, H., E.E. '26
Vanderlip, A. L., E.E. '24
Vanderschaaf, W. D., M.E. '25
Van Voorhees, A. A., E.E. '27
Werner, A., Ch.E. '27
Weinstein, E., E.E. '27
Weinfeld, S., E.E. '27
Widdop, R., M.E. '24
Willhardt, H. W., E.E. '27
Winans, R. R., E.E. '27
Wolpert, F., E.E. '27

THE 1924 **KEM·LECOMEK** STAFF

R. WIDDOP, Editor-in-Chief
E. L. BURNETT, Associate Editor
F. R. FOGEL, Business Manager
C. M. BEYER, Assistant Business Manager
I. BERGMAN, Circulation Manager
C. P. MANNHEIM, Art Editor
L. H. PATTERSON
M. RUNYON
E. LAGRANDE
V. H. RIPLEY
P. G. COBB
R. MORGENROTH

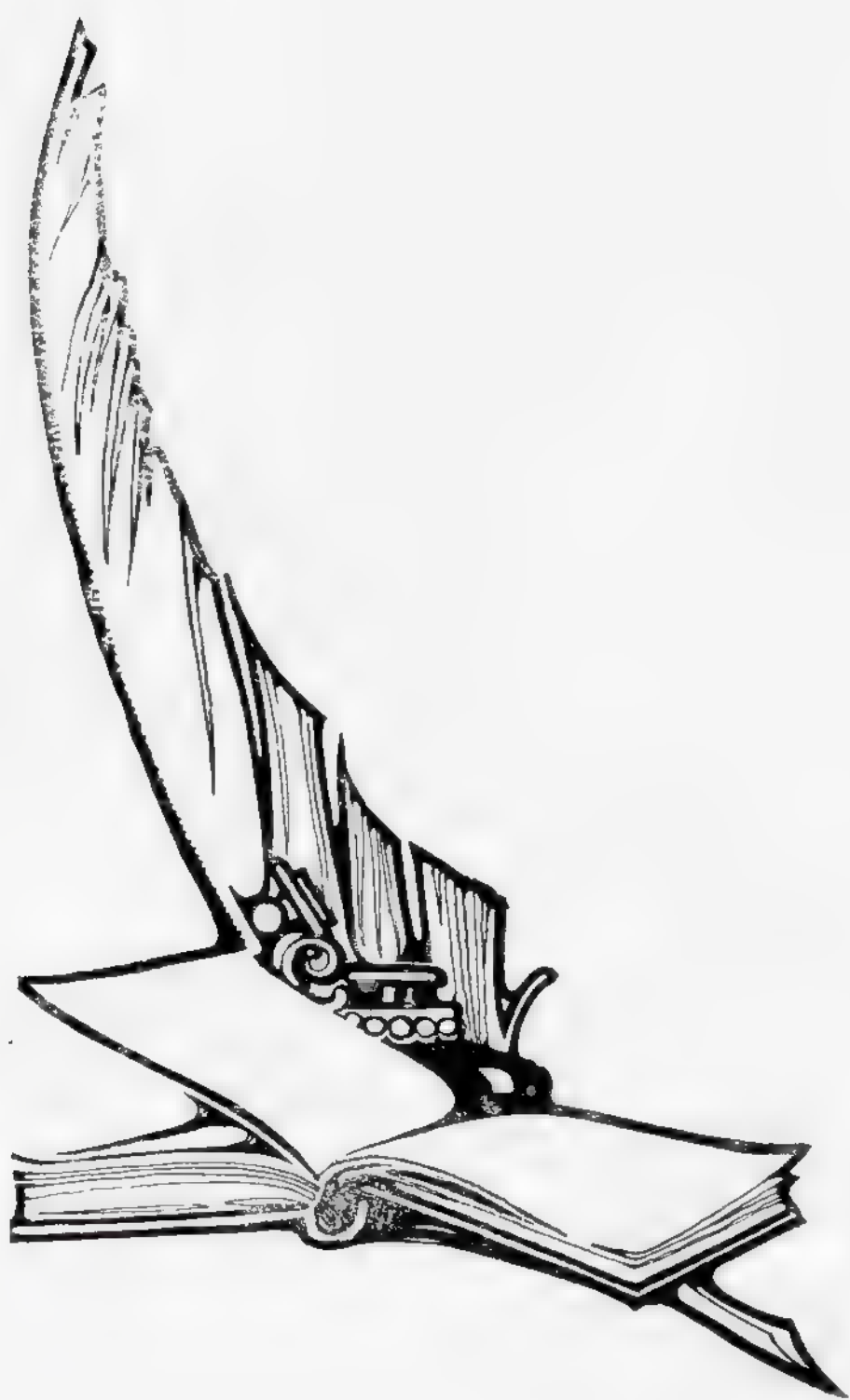
ACKNOWLEDGMENTS

THE staff feel especially indebted to those who lightened the task of publication by timely advice and aid. Mr. Cullimore and the members of the Faculty have continually placed at our disposal a real fund of valuable information gained from experience. Mr. Pierce gave unsparingly of his time and technical knowledge in taking of so many of the photographs.

To Mr. Francis Widdop who stepped in and gave of his time and energy, to Miss Grace Johnson for art work, to Mr. Burrowes of the Newark Sunday Call, Mr. McKechnie and Mr. DeVilleroy of the Art Photo Engraving Co. for real interest we acknowledge special indebtedness. We appreciate the great interest and real ability of Mr. W. L. Ellis in pushing the publication of the book. We must especially mention Mr. C. M. Beyer of the staff who filled a definite breach in the organization at a critical time with unstinted loyalty. It would be impossible to thank individually all those who helped but to all many thanks.

AUTOGRAPHS

AUTOGRAPHS



OUR ADVERTISERS

Our advertising section is an index of the leading concerns in this section. They have done a large part in making this book possible. We ask the friends of Newark Tech to extend their patronage to these advertisers not only because of the aid which they have rendered us but also because we know that our friends will profit through dealing with concerns of recognized standing in their respective fields.

INDEX TO ADVERTISERS

Amercian Oil and Supply Company	74
Armitage & Sons, J. Hague	73
Art Photo Engraving Co.	72
Bertl, Norbert	77
Brette, Paul	79
Cooper & Co., Chas.	75
Edison Portland Cement Company	76
Eitel, Andrew	79
Ellis, W. L.	78
Fidelity Union Trust Company	71
General Electric Company	72
Gould & Eberhardt	74
Hanson & Van Winkle Company	76
Hockenjos Co., J. J.	79
Koenig Studio, Inc., E. J.	73
Lehn & Fink., Inc.	70
Ludlow & Squier	75
Nairn Linoleum Company, The	67
Newark Preparatory School	68
Newark Technical School	66
Newark Wire Works	78
New Jersey Laboratory Supply Co.	79
Niagara Fire Insurance Company	75
Posner, Joseph	77
Prudential Insurance Co.	73
Richards' School of Dancing, M. C.	78
Rothrock, S. C.	78
Ruehle & Co., E. G.	78
Runyon & Carey	73
Schenkel's	78
Seaboard By-Product Coke Co.	71
Singer Sewing Machine Co.	69
Splitdorff Electrical Co.	74
Walsh's Sons & Co., Inc.	78
Washington Restaurant	79
Weston Electrical Instrument Company	72
Zatko, Joseph	79

COLLEGE OF ENGINEERING

OF

THE NEWARK TECHNICAL SCHOOL

COURSES IN CHEMICAL, ELECTRICAL
AND MECHANICAL ENGINEERING,
LEADING TO THE DEGREE
of B.S.



EVENING TECHNICAL COURSES GENERAL TECHNICAL COURSE
ELECTRICAL, MECHANICAL AND CHEMICAL COURSES



For Information Apply to the Registrar

NEWARK TECHNICAL SCHOOL

367 HIGH STREET

NEWARK, NEW JERSEY

NAIRN

BELFLOR INLAID LINOLEUM

STRAIGHT LINE INLAID BATTLESHIP INLAID

MOULDED INLAID PLAIN LINOLEUM

PRINTED LINOLEUM CORK CARPET

LINOLEUM RUGS LIN RHUBER

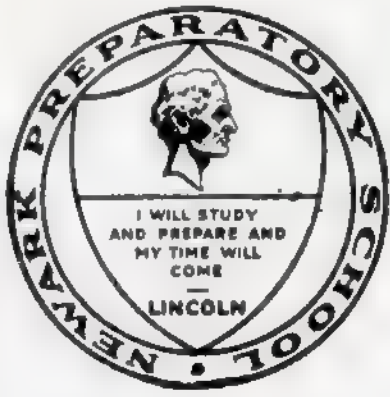
PRO-LINO (FELT BASE)

—————

MANUFACTURED BY

THE NAIRN LINOLEUM COMPANY

KEARNY, N. J.



Sessions
are held
day and
evenings



School
is open
throughout
the year

NEWARK PREPARATORY SCHOOL

High School Course in Two Years

1030 BROAD STREET

(at *Lincoln Park*)

NEWARK, N. J.

Market 6120

Mulberry 0285

The Newark Preparatory School now occupies its own stately and beautiful four-story building. The entire building is being devoted exclusively to school uses. In class rooms, study halls, library, museum, rest rooms, lecture halls and science laboratories are sanitary and immaculately clean, scientifically heated and perfectly appointed.

The building is situated at Lincoln Park, the beauty spot of Newark, and yet is only within a short walk of Broad and Market Streets. Immediately adjacent to the school are the Medical Arts Building, the Salaam Temple, the Elks Home and the Academy of Medicine.

There are special recreational, athletic and social features that are found only at this school, and which add so much charm to the school life. These are the surroundings under which the student works—refined, dignified, pleasant, cheerful and inspiring.

BECOME A STUDENT OF THE
NEWARK PREPARATORY SCHOOL
1030 BROAD STREET, NEWARK, N. J.

Send for Catalog F

(Catalog C F describes the One-Year Secretarial Training
and Accountancy Courses)

For additional information see

MR. SOL. FISHMAN, ZAEZ

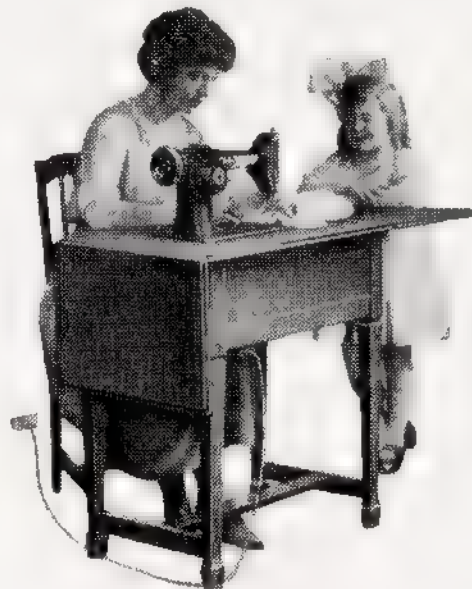
Singer Electric Sewing Machines

MEET EVERY HOME REQUIREMENT



Portable Electrics

Light to carry
Simple to operate
Easy to put away



Singer No. 101

De Luxe Cabinet
Built in Motor
Singerlight



Singer Motor

Makes your treadle
machine a time
and labor saver

A Type For Every Need

EVERY woman with electricity in her home should not fail to investigate the many improvements for speed, comfort and convenience made possible by the application of electricity to the sewing machine. A quiet little motor runs the machine three times as fast as by treadle, while a tiny electric lamp illuminates the stitches, eliminating all eye strain. There is nothing to do but guide the work. Only the pleasant part of sewing remains.

The name Singer stands for the best in **ELECTRIC** sewing machines, as it has for seventy years in other types. Of the many styles available, there is one that will exactly meet your sewing needs. See them at any Singer Shop and arrange for a demonstration in your home.

Singer No. 101. The sewing machine de luxe. Best in appearance as well as performance.

Singer Portables. Light, compact, easily closed in carrying case and put away when not in use. See the new **ALUMINUM** machines, light enough to carry anywhere.

Portable Folding Table. For use with portable electric machines. May be folded up and put away in a closet with the machine or used for many other purposes.

Singer Sewing Motor. Easily attached to your treadle machine. Saves time and labor.

Singerlight. For sewing on dark days or at night. Instantly attached to your present machine.

Liberal Exchange Allowance for Your Treadle Machine

Balance in Convenient Payments

SINGER SEWING MACHINE CO., Inc.

There in a Singer Shop near you

Consult Telephone Directory



Brushing Alone Will Not *Keep Your Teeth Clean*

Five minutes after you brush your teeth, the acids of decay are forming again unless you use a paste that stimulates the mouth glands.

Pebeco Tooth Paste is the only dentifrice that affords the proper degree of stimulation. Long after you have brushed your teeth with Pebeco, the salivary glands continue to pour forth alkaline, cleansing stream.

In this manner, your mouth is kept clean all the time.

You can buy Pebeco at any drug store.

LEHN & FINK, Inc., NEW YORK

KOPPERS
SEABOARD
COKE

**T H E
Q U A L I T Y**

of Coke is dependent upon the quality of the coal from which it is made.

KOPPERS SEABOARD COKE is made from only the finest coking coal obtainable.

Heat your home with it at less cost and with greater satisfaction. Only half the ashes to handle as compared to hard coal.

SAVE MONEY

SEABOARD BY-PRODUCT COKE CO.

Phones Montgomery 4120
Kearny 1041

JERSEY CITY, N. J.

One of the Best Friends

that you can have is your own bank account. It will be your friend in trouble or in pleasure and when opportunity knocks at your door. Think that over now and then—start a checking or a savings account in this bank—the largest in the state.

Fidelity Union Trust Company

Broad and Bank Streets, Newark, N. J.

**Banking, Savings, Trust, Mortgage,
Safe Deposit, Title and Foreign
Departments.**

Member Federal Reserve System



The Initials of a Friend

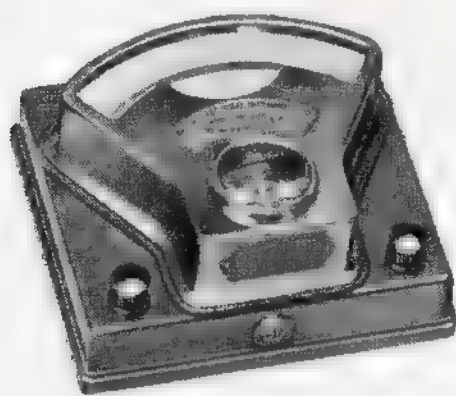
You will find these letters on many tools by which electricity works. They are on great generators used by electric light and power companies; and on lamps that light millions of homes.

They are on big motors that pull railway trains; and on tiny motors that make hard housework easy.

By such tools electricity dispels the dark and lifts heavy burdens from human shoulders. Hence the letters G-E are more than a trade mark. They are an emblem of service—the initials of a friend.

General Electric Company

BLOOMFIELD, N. J.



You will use Weston Instruments after you graduate

Why Not Get Acquainted Now?



Write for Circular "J" which will give you information on Radio Instruments

**WESTON ELECTRICAL INSTRUMENT
COMPANY**

WESTON AVENUE, NEWARK, N. J.



Retouching, illustrating,
designing, process color
plates, Ben Day color plates
half-tone plates, line plates.

ART PHOTO ENGRAVING Co.
91-93 HALSEY STREET
NEWARK, N. J.

WHAT WATT DID

The governor, steam gauge, steam hammer and screw propeller are only a few of the many improvements and additions which James Watt gave the engineer of today. The electrical unit, the watt, was named in his honor.

Perhaps the greatest credit for the perfection of the steam engine also goes to Watt who spent some forty years of his life in working out the details. Weak as a boy, he was forced to abandon school and took to his natural bent, machinery.

Historians tell us that he retired and left his sons a large interest in a remunerative business, although he was the son of a poor family.

From this we learn the lesson that hard work was, and is, an essential if one is expected to have enough for the rainy day. Today the means of providing for the future are made more easy for the young man through Endowment Insurance.

Save a Dollar a Week in This Way and Watch It Grow.



THE PRUDENTIAL INSURANCE COMPANY OF AMERICA

EDWARD D. DUFFIELD, President

Home Office, Newark, New Jersey

J. HAGUE ARMITAGE & SONS

Incorporated

MANUFACTURERS OF

Enameled Oil Cloth, Enameled Paper and Coated Specialties

FACTORY: Cor. Dawson and Thomas Streets NEWARK, NEW JERSEY

E. J. Koenig Studio, Inc.

875 BROAD STREET (Corner William)
NEWARK, NEW JERSEY

Commercial Work in all its branches

All portrait and group work in this book
made by Koenig's Studio

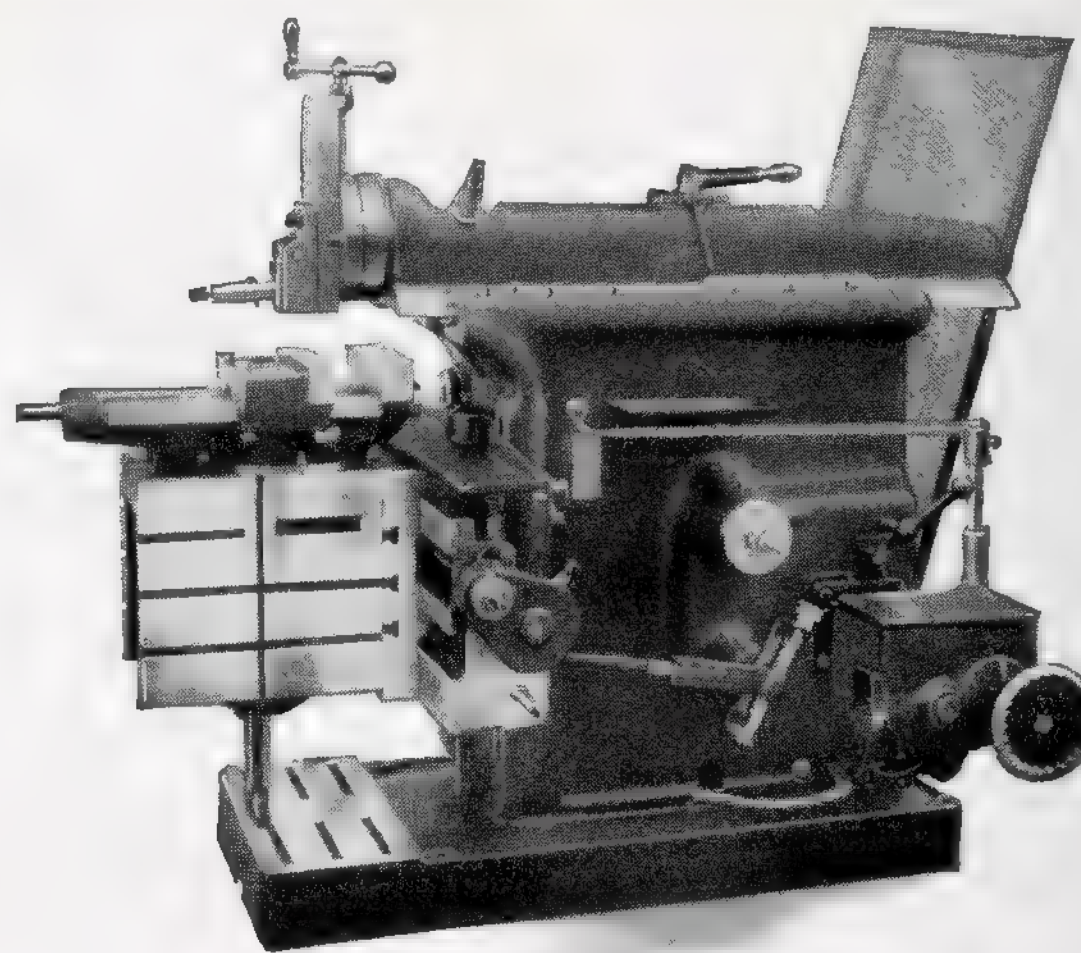
Telephone Market 3718

RUNYON & CAREY CONSULTING ENGINEERS

845 BROAD STREET
NEWARK, N. J.



Recognized
Shaper Leaders
For over 70 Years



American Oil and Supply
Company

238 WILSON AVENUE, NEWARK, N. J.



INDUSTRIAL CHEMICALS
COMMERCIAL ACIDS
SOLVENTS



SPLITDORF
DEPENDABLE IGNITION

MAGNETOS
GENERATORS
SPARK PLUGS
IGNITION CABLE
AMMETERS and GENERATORS
CUTOUTS

SPLITDORF ELECTRICAL CO.
NEWARK, N. J., U. S. A.



Niagara Fire Insurance Company

NEW YORK

Assets Exceed \$17,500,000

"MIGHTY AS THE FALLS"

Organized in 1850

73 Years of Satisfaction

Surplus to Policy Holders

\$6,733,134.21

Safe and Sure

FULL PROTECTION

PROMPT ADJUSTMENT

By "LOCAL ADJUSTERS"

"We have Paid Over \$2,000,000.00 in Fire Losses in Newark and Vacinity"

LYON & LYON, Managers

NEWARK BRANCH OFFICE, 185 MARKET STREET

Telephones Mulberry 2142 and 2143

TOOLS
FOR ALL TRADES

Catalogs for the Asking

LUDLOW & SQUIER

"Hardware That Stands Hard Wear"

97-99 MARKET STREET

NEWARK, N. J.

COOPER QUALITY CHEMICALS

Are Used in the

NEWARK TECHNICAL SCHOOL

Acids

C. P. and Tech.

Muriatic

Nitric

Sulphuric

Ammonia

Aqua

Anhydrous

Bone Ash

Chrome Oxide

Collodion

Copper Carbonate

Copper Chloride

Ether Sulphuric

Ethyl Chloride

Iodine

Manganese Borate

Nickel Nitrate

Nickel Chloride

Silver Nitrate

Silver Chloride

Sodium Carbonate

Sodium Sulphide

Sodium Sulphite

Sulphur Flour

CHAS. COOPER & CO.

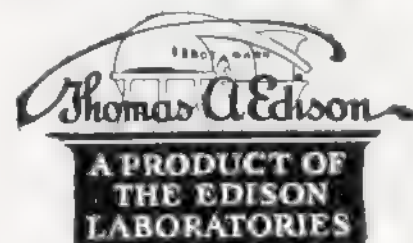
Manufacturing Chemists Since 1857

194 WORTH STREET

NEW YORK

Works: Newark, N. J.

Edison PORTLAND CEMENT



The wise young engineer does well by being guided by the experiences of the older men of his profession. Engineers and builders have confidence in EDISON and its wide use in important constructions has been their seal of approval.

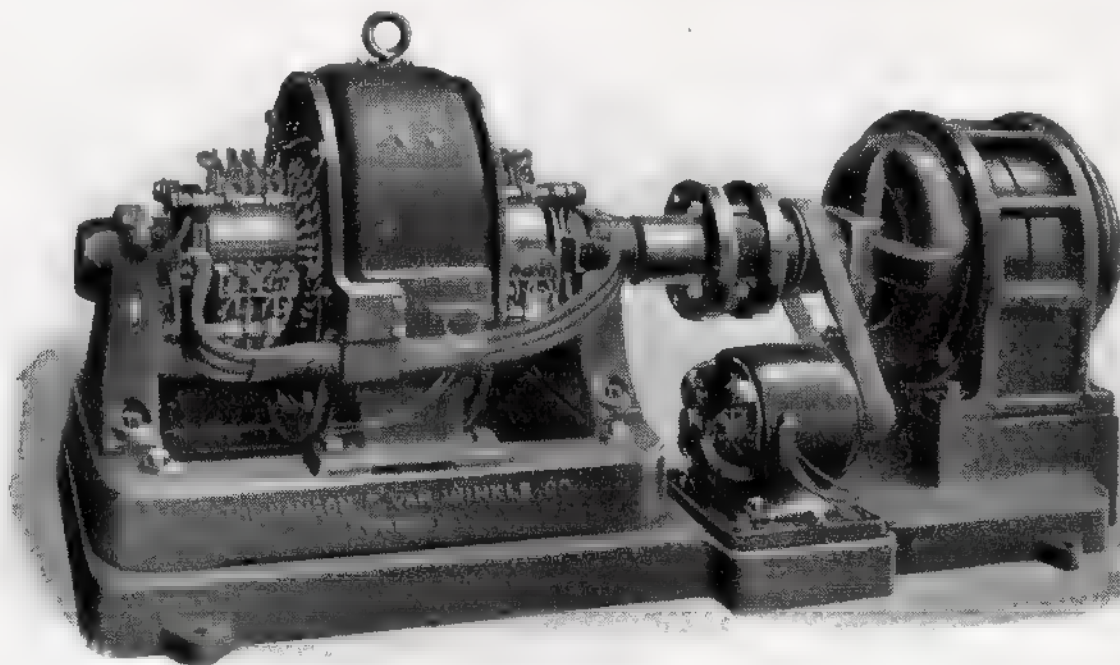
EDISON PORTLAND CEMENT COMPANY

79 MILK STREET
BOSTON

469 FIFTH AVENUE
NEW YORK

20 S. 15TH STREET
PHILADELPHIA

THE HANSON AND VAN WINKLE COMPANY INTERPOLE DYNAMOS

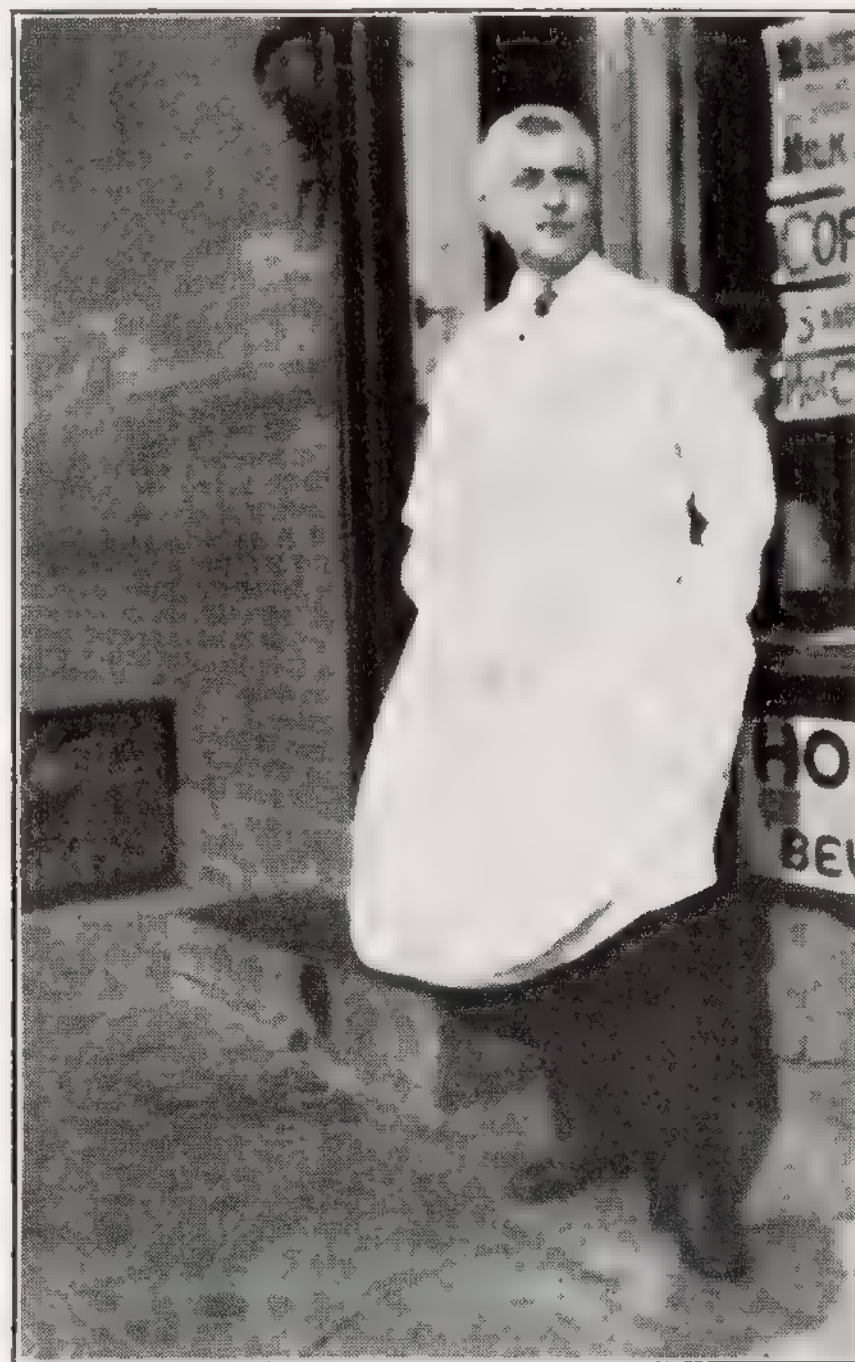


MOTOR GENERATOR SETS AND EVERYTHING FOR THE PLATING AND
POLISHING SHOP
MECHANICAL ELECTROPLATING EQUIPMENT
ELECTRICAL INSTRUMENTS RHEOSTATS CONNECTIONS POLISHING LATHES
POLISHING WHEELS and MUSLIN BUFFS
CHEMICALS FOR ALL KINDS OF PLATING SOLUTIONS
MANUFACTURED BY
THE HANSON AND VAN WINKLE COMPANY
NEWARK, N. J.
New York, 70 Lafayette Street Detroit, 1940 Rivard Street
Chicago, 842 West Erie Street Cleveland, 1434 West Third Street
Providence, R. I., 36 Garnet Street

SANDWICHES
CANDY
ICE CREAM

CIGARS
CIGARETTES
TOBACCO

JOSEPH POSNER
342 HIGH STREET
NEWARK, N. J.



SHAKESPEARE SAYS



"Good name in man or woman
dear
Is the immediate jewel of
their souls."

A DIAMOND or any
JEWEL bought at
BERTL'S

Reflects the name of high quality, refined
taste and reasonableness

Serving three generations of satisfied
customers and ready for you

NORBERT BERTL
Diamond Expert

46 Springfield Avenue Newark, N. J.

Oscar Froehlich, Prop. Telephone Waverly 5880

NEWARK WIRE WORKS

MANUFACTURERS OF
BANK, OFFICE AND STORE RAILINGS
WE ALSO SPECIALIZE IN MACHINE GUARDS
Plain and Ornamental Wire and Brass Work of
Every Description

676 SOUTH FOURTEENTH STREET
Near Springfield Avenue NEWARK, N. J.

Tel. Market 1080-0989

THE "ELLIS" LINE

Typewriter Ribbons—All colors for all machines
Typewriter Carbon, Pen and Pencil

Typewriter Paper—all sizes—sample folder on
request

Engraving, Filing Folders and Envelopes
Stenographers' Note Books
Manila Ruled Legal Pads

W. L. ELLIS

30-32 CLINTON STREET, NEWARK, N. J.

Phone Market 4313

S. C. ROTHROCK

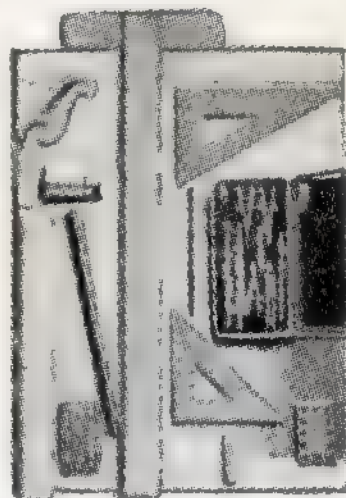
CUSTOM TAILOR

FULL DRESS SUITS TO HIRE

53 ACADEMY STREET
NEWARK, N. J.

Telephone Mulberry 1607

E. G. RUEHLE & CO.



Drawing Materials and Mathematical Instruments

Architects and Engineers
Supplies

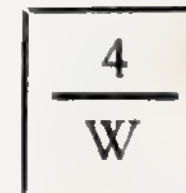
Blue Prints and Photostats
Rain or Shine

30-32 CLINTON STREET
NEWARK, N. J.

Main Office: 180 Fulton Street
New York

WALSH'S SONS & CO., Inc.

Harrison, N. J.



Newark, N. J.

SCHENKEL'S CUSTOM TAILOR

DRESS SUITS AND FURNISHINGS TO HIRE FOR
ANY OCCASION

CLOTHES TO ORDER LATEST FASHIONS
63 MARKET STREET

Mulberry 6451
NEWARK, N. J.

DANCING

A HEALTHFUL PASTIME

M. C. Richards School of Dancing

653 Broad Street, Eisele Building

Classes, Private Lessons, Social Dancing
Open Daily, 10 A. M. to 11 P. M.

Tel. Market 9950

JOSEPH ZATKO

THE GOOD SHOP DOWN THE STREET

CIGARS, CIGARETTES AND CANDY

WAFFLES A SPECIALTY

10-CENT SUNDAES

375 HIGH STREET

PAUL BRETTE'S RESTAURANT

1014 BROAD STREET

Next to home this is the best place to eat

Rooms for Private Parties and Banquets

Phone Market 10159

Telephone Market 7406

ANDREW EITEL

CARPENTER AND BUILDER

Shop 90-94 Brill Street (rear)

86-88 BRILL STREET

NEWARK, N. J.

58 YEARS SELLING GOOD PAINT
OILS AND VARNISHES

J. J. HOCKENJOS CO.

829 Broad Street NEWARK, N. J.

ELIZABETH: 86 Broad Street

Free and frequent deliveries in city and suburbs

Telephone Market 0984

N. J. LABORATORY SUPPLY CO.

235-239 PLANE STREET

NEWARK, N. J.

Everything for Laboratories

Phone Market 4880

A Newark Good Restaurant

THE WASHINGTON

559 Broad Street and Washington Place

NEWARK, N. J.

Ball Rooms

Private Dining Rooms

THIS BOOK

was planned

and

printed by

W. L. ELLIS

30 & 32 Clinton Street

Newark, N. J.

NJ R 620.0071174932 K31
The 1924 Kem-Lec-Mek : 1924
the annual of the
MAIN
33173005247107

DATE DUE

DATE DUE			
GAYLORD			PRINTED IN U.S.A.

GAYLORD

PRINTED IN U.S.A.

NEWARK PUBLIC LIBRARY



3 3173 00524 7107

NJ R
620.007
1174932
K31
1924